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A study of prematurely and routinely discharged patients from Louisville General Hospital in 1946.

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A STUDY OF PREMATURELY AND ROUTINELY DISCHARGED PATIENTS FROM LOUISVILLE GENERAL HOSPITAL IN 1946

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In July 1946 the Board of Health of Louisville and Jefferson County, Kentucky, announced its decision to curtail services of the public health department serving the metropolitan area surrounding and including Louisville, and the outlying agricultural region in the rural part of Jefferson County. In the past decade the combined health department for Louisville and for Jefferson County had accomplished much for the health needs of the citizens of the community. The close association, as a teaching hospital, with the University of Louisville Medical School, had helped General Hospital, the former municipal hospital known as City Hospital,[1] to become a good general hospital with fairly adequate ward and clinic facilities.

Therefore, it was with regret that the Health Board decided to curtail service just when it was most needed, as returning servicemen, and new family groups; industrial workers attracted by new industry

[1]Louise Myers, "A History of the Louisville City Hospital." (Unpublished Master's thesis, Department of History, University of Louisville, 1940.)

locating in Louisville and the surrounding county; and families attracted by the expansion of business in the growing metropolitan area, made Louisville an increasingly important city in the nation.

After curtailment had been announced as a definite policy of the administration of the entire health department, and five wards at General Hospital had been closed, as a part of this plan, there developed another important practice. This was the practice of discharging patients prematurely, or before the doctor or resident in charge of the ward had indicated they should be ready to leave the hospital. Premature discharge had to be adopted for reasons which will be developed later in the study, but it had certain implications for the staff and for the patients who were so discharged. The effects on hospital administration and on a sample group of patients will be considered.

Premature discharge developed as a definite policy of the medical staff and of the hospital administration, so as to make the hospital's facilities stretch as far as possible under drastic curtailment of space and service. As a policy it has never been accepted as correct by the administration, the Health Board, or the medical and nursing staff. The reality of the situation in the hospital made this, or some other drastic measures necessary, if the administration of the hospital was to accomplish the degree of curtailment and still keep up reasonable coverage of the acutely ill population and maintain nearly-adequate standards of medical care.

A study was made of the patients discharged prematurely since the curtailment plan went into full effect in July 1946. The facts pertaining

to this sample group were compared with those of a control group of patients routinely discharged during the same period. The purposes were to discover just what had happened to patients who were prematurely discharged, to what extent their medical care was completed through clinic care or by readmissions. The other purpose of the study was to discover and analyze, insofar as possible after a period of nine or ten months of curtailment and premature discharging, what the results had been to the patients at General Hospital. For these purposes material from General Hospital records were made available by the hospital administration and medical staff. It was possible to compare some items in the care and results of medical care between the study group of prematurely discharged patients and the control group of routinely discharged patients.

In the control group it was not possible to visit the patients, but their medical records were studied. The study group of prematurely discharged patients were studied more thoroughly through their medical records, interviews with them, and some discussion with their doctors at General Hospital, if the situation was a peculiarly difficult one to treat medically. From this group of patients much material was obtained on the meaning of illness, but is not included in the presentation of the study material because it does not bear directly on the problem of curtailment or premature discharge.

Case selection was made by taking the first one hundred names listed in the ward books on surgery, both white and colored, male and female wards. These records were all marked "premature discharge" by the doctors when the patients left the hospital in July or August 1946. It

was decided to study only surgical patients because few medical patients were discharged prematurely, and very few pediatric cases were so discharged early in the period under study. The maternity cases on obstetrics service, however, were almost uniformly discharged prematurely, except in cases of serious complications of pregnancy, labor or birth. Since there could be no control group set up from maternity service because there were almost no routinely discharged patients on this service, this group of patients could not be used for study. The surgical patients were also more homogenous in age distribution, and the color and sex ratios were well-balanced.

The material relating to average length of hospitalization, and to special diagnoses, was discussed with the head resident on surgery at General Hospital. Medical-social aspects of the curtailment measures were discussed and analyzed, with hospital administrative problems in mind.

In several cases the social agency active on a patient was telephoned for additional information about him, and Social Service Department at General Hospital was asked for confirming details on what had happened to a few patients known to them. It was surprising how few of the prematurely discharged group had been reviewed from a medical-social viewpoint, and how few had been referred by the medical staff to the Social Service Department. All patients were also cleared for information only with the Social Service Exchange.[2]

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[2]Cf. appendix IV on registration of prematurely discharged patients.

The medical literature was searched for information regarding similar studies of premature discharge or of desirable hospital stay according to certain diagnoses, but little information could be obtained. The New York City study, made by its Welfare Council in 1933-1943,[3] was the only study of hospital discharges that could be found for comparison with the experience of Louisville General Hospital. This New York study included all patients discharged from all types of hospitals--voluntary, non-voluntary or public hospitals--for all types of diagnoses in 1933.

The monthly statistics of General Hospital for routine and premature discharges were studied and compared, and trends were analyzed. These will be presented in the body of the study. These figures include such factors as statistics on admissions, deaths, total care during the month, daily average bed usage during the months under study. The period of July 1946 through April 1947 was used and was compared with a base war year of 1945-1946 and a pre-war year of 1940.

In the next chapter section the problems of curtailment and of premature discharge will be discussed. In the succeeding chapters the statistical data of the study will be presented to show what premature discharge and curtailment has meant to a sample group of patients seeking surgical treatment at General Hospital.

HISTORY OF CURTAILMENT IN HEALTH DEPARTMENT

The problems of public hospital administration, as of public

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[3] Cf. Welfare Council of New York, Hospital Discharge Study, 1943.

health and nursing programs, are made more complex by responsibility to the public. The responsibility is primarily to give medical service, rather than to engage in research, teaching of medical students, technicians, medical social workers, or nurses. No matter how laudable these secondary functions of the public hospital may be, and how necessary they may have become in performing the first service, provision of medical care to the community, these secondary functions are not always considered essential by the taxpayer, or the appropriator of public funds. The public hospital is not designed to make a profit, but more often operates on a deficit, and is therefore handicapped in giving the best hospital care to its patients.

In recent years in both public and private fields, hospital administration has become a specific technique with certain aims of a professional nature. This is shown by several very important studies in the field[4] and by the development of the American Hospital Association and the group of hospital administrators who have had special training for their jobs. In 1922 the Rockefeller Foundation published the following statement on principles of public and private hospital administration. It is quoted by Dr. Franz Goldmann in his excellent study of Principles and Problems of Public Medical Care.[5] Dr. Goldmann's work in this field is notable, as he knows not only American, but British and continental

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[4]Malcolm Mac Eachern, M. D., Hospital Organization and Management, (2nd Edition, 1946, Physicians Record Company, Chicago, Illinois.)

[5]Franz Goldmann, M. D., Principles and Problems of Public Medical Care,(Columbia University Press, New York, 1945), p. 6.

experience in this field of public medical administration. The Rockefeller statement gives this definition of a hospital:

> A hospital is a community organization which provides facilities and personnel for rendering the highest possible grade of health service to the community, its patients, and to professional groups; for educating the community to demand and support adequately health services and sound health policies, for educating additional personnel and professional groups in technical fields in cooperative endeavor, and for advancing our knowledge of disease, and its prevention through technical research and appropriate organizations.

Dr. Goldmann also cited the standards for public hospital care which were enunciated by the American Public Welfare Association in 1939, in a pamphlet entitled Essentials of Tax-Supported Medical Services.[6]

1. Scope and amount of care sufficient to include all necessary preventive and curative service required by persons unable to procure it for themselves.
2. Good quality of service and of personal attention.
3. Reasonable accessibility and promptness of service.
4. Continuous care of the patient including
   a. Continuity of diagnosis and treatment by different types of service-home, ambulatory-clinic, and hospital or custodial care.
   b. Continuity of preventive and curative service.
   c. Integration of medical and social treatment.
5. Provisions of service under conditions which will encourage its full use, avoidance of conditions which will deter the needy from securing necessary medical care or discourage practitioners.

Just how well able the Louisville and Jefferson County Board of Health was to offer the citizens of the community such public medical service under the pre-curtailment conditions, and under the curtailment policy itself, will now be discussed.

The Board of Health was formed by a merger of the city and county health departments on March 15, 1942. Since that time health services to the metropolitan area improved. There was an expansion of public

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[6] Ibid., p. 83

health nursing services, both in clinics, and in bedside nursing. The former City Hospital became known as Louisville General Hospital and accepted county patients; simultaneously the administration of the hospital became coordinated with that of the tuberculosis sanitorium, Waverly Hills. Public health services also included communicable disease control, medical and dental service in the public schools, and the "city doctor" service to indigent persons in their homes, in cases of emergency or extreme hardship. A very important division in the Health Department's Preventive Division was the sanitation department. Although there is a relationship between health services offered under each of these divisions of the Board of Health, the scope of this study includes only General Hospital.

The curtailment was to affect all functions of the combined city and county health department. The Preventive Division also includes meat and milk inspection for the whole metropolitan area, and inspection of some 3,500 food-handling establishments, including restaurants, groceries and taverns;[7] communicable disease control, including tuberculosis and venereal disease; and health examinations in commercial buildings.[8] When city doctor service, public health clinics and school and home nursing functions are added to the above list of functions of the Health Department it can be seen what a large undertaking the health organization of a large urban-rural area becomes. It should be kept in mind that all of

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[7] Edward Edstrom, Courier-Journal, (January 12, 1947), Section 3, p. 1.

[8] Ibid.

these functions are added to the administration of Waverly Hills and General Hospital.

These services call for a large expenditure of money, and curtailment became necessary because of budgeting for the entire health department. The Health Board has approximately 1,000 employees[9] and an annual operating budget of a little less than $2,000,000.

Reasons for the curtailment were the rising costs of maintenance of the various services, the decrease in the budget appropriations by the tax-appropriating bodies of city and county governments in 1946 for the coming year, and the difficulties in maintaining services because of the scarcity of personnel, particularly in the nursing profession.

Costs of maintenance of the physical plants, of food for patients and staffs and of salaries of all personnel were all higher in 1945-1946 than ever before, and continued to rise. The Health Department was further handicapped by inheriting deficient equipment from past administrations before the merger in 1942, and because it had no replacement account, depreciation of equipment could not be budgeted except by specific appropriations. The department has not been able to meet competition from industry for personnel.

Nursing service is so important to any medical institution that it often becomes the focus of the question of adequate care for any individual group of patients. This is especially true in a public teaching hospital, where, because of the financial inability of the patients to buy

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[9] Ibid.

nursing service, all nursing service must be paid by salary appropriations for the hospital, or be unpaid student work. The accepted United States average of nursing care per patient per day is three hours, while General Hospital in 1945-1946 was able to furnish only six-tenths of an hour of nursing service per patient day. It was recognized by the Board that this situation would have to be improved. In 1946-1947, under the plan inaugurated in July 1946, the available nursing staff was so placed on the wards at General Hospital that one and one-half hours per patient per day could be given, rather than six-tenths of an hour.[10] It can be seen that General Hospital is still behind the national average, but is making good improvement in nursing care under curtailment.

The Board of Health wished to provide the best service possible for the citizens. In 1946 it requested a budget of $2,300,000 of which only $1,735,000 was allowed by tax-appropriating bodies of the city and county. With anticipated revenues of $150,000 from part-pay patients, etc., the sum of $1,885,000 only equalled the budget for the year 1945.[11] However, unexpected revenue for the Health Department was added from revenue from real estate through increased tax-assessments, and Municipal Bridge Funds are expected to add more revenue. The total from these sources would only be $142,000 for the year 1946-1947, ending July 1, 1947.[12] Other revenue from drug sales, fees and from dairies in adjacent

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[10] Minutes of the Board of Health, Louisville and Jefferson County, July 1946, "Curtailment in Health Service," p. 2.

[11] Ibid.

[12] Edstrom, loc. cit., p. 1.

counties for food inspection might add another $150,000 to the total budget of the Health Department. The Health Board had hoped to spend $175,000 alone on repairs for General Hospital kitchens, so it can be seen what large expenditures are needed.

When the Board asked for $2,300,000 and got $415,000 less than they requested, they thought it necessary to retrench health services, and to curtail the program in all phases. It is with General Hospital that this paper will deal. In asking for the above budget, the Board maintained that it was meeting only minimum needs of the community. With a large slice of the requested budget not granted, measures for curtailment were in order. The department had hoped to provide a "semi-satisfactory health program for the city and county,"[13] through the budget originally requested for 1946-1947, but made the decision to curtail after the appropriations failed to pass.

In making the decision to curtail service, the statement was made by the Board of Health that "no attempt has been made, nor can be made, to meet even a conservative and moderate estimate of the medical needs of the community. The restriction of funds forced this curtailment. . . . . To do otherwise (than to curtail service) would mean complete breakdown of all health activities because of the steeply rising costs."[14]

The Board decided that the citizens would get better medical service if the work were curtailed than if the reduced budget were made to

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[13] Minutes of Health Board, op. cit., p.2.

[14] Ibid., p. 3.

spread over a larger area of service. There was a choice between lowering the standards of quality of medical service, or of discontinuing or restricting certain services, i. e., reducing the quantity of medical service available to the public. The Board of Health felt that economies necessitated by the reduced budget and by increased costs of operation could only be made by actually restricting ward service at General Hospital and Waverly, as well as cutting out much of the work of the Preventive Division. The Board knew curtailment of ward service would restrict the use of General Hospital as a teaching facility by the University of Louisville Medical School.[15] The Medical School has developed Nichols General Hospital, a Veterans Administration facility located in Louisville, as a teaching placement for students.[16]

The curtailment involved all branches of the Board's work. Waverly Hills' bed capacity was cut from 452 in 1945-1946 to 400 for 1946-1947. Service was needed for 480 patients.[17] The curtailment of service to tuberculosis patients was made in spite of the increased need for tuberculosis case-finding, especially in the Negro population. More patients were kept longer on the waiting list for admission to Waverly Hills, and in many cases patients had to be discharged prior to arrest or cure of the disease. Before the date of this study a change was recommended by Grand Jury which asked that an additional $50,000 be allotted to Waverly

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[15] Ibid., p. 4.

[16] Letter to investigator from Dean John Walker Moore.

[17] Minutes of Health Board, op. cit., p. 2.

Hills to reopen the wards where up to 60 beds were unoccupied due to shortage of funds, and to purchase long-needed equipment.[18] However, the Board of Health took no action in this matter in February on this recommendation of the December Grand Jury.

The Preventive Division was also affected by the general cut in funds, making reduction of service necessary. Perhaps this division's loss was greater in proportion to its variety of functions than that of the two hospitals. It lost sanitation inspectors, and public health nurses, city doctors and had to curtail its public school medical and dental programs. This affected the same group of patients served by General Hospital.

General Hospital is a most important service to the community and in many ways represents the Health Department to its patients. Its service was seriously curtailed in July 1946. With the requested budget of $2,150,000 from City and County funds, plus the hospital's own revenue (cf, supra, p. 10) the Board had hoped to be able to provide in 1946-1947 for an average of 400 bed patients per day and for an average of 500 patients per day in clinics.[19]

Under curtailment it was possible to maintain clinic service at about the desired level. An average between 400 and 500 patients per day will be served in the various clinics. It was also possible to maintain

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[18] Courier-Journal, News article, (February 20, 1947), Section 4, p. 1.

[19] Minutes of the Health Board, op. cit., p. 1.

the twenty-four hour service of the emergency clinic.[20] It was estimated that the elimination of city doctor service would make heavier demands upon the emergency clinic. Curtailment of the number of bed patients may add to the clinic those patients whose treatment cannot be completed on the wards. A certain amount of this type of service is always necessary in a municipal or any public hospital with clinic facilities, as it saves bed space and makes for more economical service. However, after curtailment medical patients were treated almost wholly in clinic, because the medical and surgical wards were combined. Therefore, clinical work-ups and diagnosis in clinic rather than on the ward became more frequently the practice.

The inpatient group at General Hospital has had to bear the brunt of the curtailment of service in order to reduce the daily average of beds occupied from 400 (the requested number) to 310.[21] The actual averages during 1945-1946 were between 350 and 450 patients, or a general average of 385 bed patients per day on all wards of the hospital.[22] According to hospital administration and public health experts, a reliable formula of number of hospital beds per population has been determined. Various surveys of Louisville's hospital service have been made in the past, and Dr. A. C. Bachmeyer's recent survey indicated that at least 600 beds should be provided for acute hospital patients in public facilities

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[20] Ibid., p. 2.

[21] Ibid.

[22] Ibid.

in a community the size of Louisville.[23]

The Board of Health feared that curtailment of ward service would mean that patients eligible for public medical care at General Hospital would not be able to obtain free service, and their conditions might go untreated. This study does not make any study of the patients it was not possible to treat. This is, in fact, one of the reasons for the premature discharge plan; the need to give service to a large number of patients on restricted facilities.

Curtailment meant first that fewer patients could be served on the wards. The daily bed average by months since July 1946 has actually slipped below the estimated figure of 310 hospital beds in daily use, to a general average for six months through January 1947 of 226 beds in daily use.

By action of the Board of Health in February 1947 the bed capacity at General Hospital was increased by 40 beds, thus raising the 310 daily bed usage to a possible 350 beds. These beds were added to the wards already in use, and would remain in use until July 1947, the end of the fiscal year. The $15,000 it is estimated that it cost the hospital to open these 40 beds was to come from "unallocated funds" and savings from other Health Board activities.[24]

The curtailment of ward services called for a reorganization of beds on the wards of General Hospital. It was decided in June 1946 to

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[23] Ibid.

[24] Courier-Journal, News article, (February 20, 1947), p. 1.

close five of the wards; three adult medical wards, which were combined with the surgical wards, one pediatric ward, and one obstetrical ward.[25] This has meant that the number of beds left for acute disease treatment in the adult age group was cut to 150 beds for white and Negro patients. Further results of curtailment to the surgical service will be considered in more detail later.

The last important aspect of curtailment of services of the Louisville and Jefferson County Health Department is the effect on the chronic disease problem. There is now no care offered to chronically ill persons, except custodial care in the over-crowded and ill-equipped almshouse, the Home for the Aged and Infirm, at Shively, Kentucky.[26] Medical care in clinics at General will continue, but patients with these long-term illnesses which are often progressively disabling will no longer receive treatment on the wards.

THE POLICY OF PREMATURE DISCHARGE

The cost of curtailment to the individual patient is illustrated by the group of patients who have had to be prematurely discharged against best medical opinion before their ward treatment was reasonably complete.

The reasons for such a policy were the same as those leading the Board to decide to curtail all services of the Health Department. They

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[25] Minutes of the Board of Health, loc. cit., p. 2.

[26] Irving Lipetz, "The Louisville Kentucky Home for the Age and Infirm," (Unpublished master's thesis, Kent School of Social Work, University of Louisville, 1942).

are specifically the lack of nursing service in General Hospital, the lack of space on the wards, which have been combined from services which used to have separate wards, and the desire to make a quick turnover of bed space, so that more patients may be served by the number of beds available. Premature discharge helps to accomplish these ends. Some patients have been sent home by hospital ambulance late at night in order to vacate a bed which was badly needed for another patient.

Since July 1, 1946, the total number of premature discharges has been a little less than that of those routinely discharged. Of a total of 4,846 discharges in the first six months after curtailment was announced, excluding 359 deaths, there were 2,129 premature discharges and 2,717 routine discharges. The cumulative totals for premature discharges and routine discharges through May 6, 1947, are shown in Appendix II, Table 1. Excluding deaths, these discharges accounted for 2,986 patients prematurely discharged and 4,102 patients routinely discharged.

In the first period from July through September 6, 1946, the average stay in hospital per patient prematurely discharged was 7.3 days, while the average hospital stay per patient routinely discharged was 10.9 days. The period from January 7 through February 6, 1947, showed the lowest number of premature discharges, 280, as against the highest number of routine discharges, 481; however, the total discharges showed the lowest total in four months. The table of figures on premature discharge and routine discharge during this six-month period will show more graphically the extent and development of the policy of discharging patients prematurely. This table is found in Appendix II, Table 2.

The largest group of the prematurely discharged patients were mothers and new-born babies. Surgery service had the next largest number of patients discharged in this way. Pediatrics service also had some premature discharges.

Curtailment has had specific effects upon the surgical service. The first result is the combination of three of the former medical wards with the corresponding surgical wards; thus, female surgical colored ward absorbed female medical colored. The male medical white ward has been continued separately from the male surgical white ward. There is a combined obstetrical ward for white and colored patients, and a predominantly colored baby ward, an isolation ward and two psychiatric wards, in addition to the four surgical wards under consideration in this study.

Curtailment of ward service has meant that an especially heavy load has been placed on the surgery service, which now has 30 beds on Male Surgical White, 15 on Male Surgical Colored, 15 on Female Surgical White, and 15 on Female Surgical Colored.

This shortage of beds means that the turnover per bed is great, as shown by the total average lengths of stay to be presented later. The hospital is now thought to be operated at too near the capacity peak. For the best treatment of the individual or for purposes of good teaching practice, a hospital should probably keep about 25 per cent of the beds vacant at a given time, so as to be able to admit some patients on an elective basis. Certainly the nursing and medical staff works at peak efficiency only when not harassed by lack of beds for acutely ill patients.

Besides shortage of beds, and great turnover of patients, the surgery service has had to abandon elective surgery almost entirely. The only exception consists of the ten beds that are reserved for hysterectomies. Elective patients who might before have been expected to have prompt or slightly delayed operations for fibroid tumors, gall bladder, chronic appendicitis, herniorrhaphy, or orthopedic conditions, must do without an operation until such time as they may become emergencies. Most admissions are either emergency surgical conditions or the results of accidental injury, such as stabbings, gunshot wounds, automobile accidents, train wrecks, etc. The work on surgery has, therefore, taken on an emergency nature, which is contrary to good surgical practice, and to the proper teaching of surgery to medical students and internes.

The work of the surgical department has become ameliorative and often curative, but the preventive aspects of its work are lost. The hope of Dr. Arnold Griswold, chief of surgery, for a surgery service combining the principles of psychiatry for the upset patient facing or recovering from major surgery must be postponed, perhaps indefinitely.

In this respect surgery service is like the rest of General Hospital, and like Waverly Hills, and the Preventive Division, in not being able to offer anything but emergency service to the citizens of the city and county who are medically indigent.

Medical treatment is sometimes delayed by the patient in the hope that he will cure himself with home remedies or that his private doctor can effect a cure. But when the clinic setup is overcrowded and the doctors are overworked there, as well as in the wards, medical diagnosis and

treatment is bound to be slower. This delay may cause prolongation of illness, and occasionally further complications, with increased cost to the patient.

Sometimes the best diagnostician purposely goes slowly in deciding from his observation of the patient, and analysis of data, just what the diagnosis is, and under what circumstances medical social treatment will be most effective.

Prognosis cannot usually be estimated until treatment is begun and observed. The doctor who knows his patient, his habits, and previous medical history is safer than the one who doesn't know these factors in making a statement regarding the patient's future, just as he is safer in diagnosing the trouble in the first place. The basis of medicine being psychosomatic, it is more important than ever that the physician and surgeon know his patient as a person. While this is well recognized in theory by this generation of young doctors and by their instructors, it cannot always be practiced in over-loaded clinics or on wards where turnover is high.

A teaching hospital that falls into the older philosophy of treating the disease rather than the patient with a disease, or the patient with a disability or a health problem, is doing incalcuable harm to its students, its internes and resident staff, as well as its visiting staff men. This loss is quite heavy also when the resultant lack of care to the individual patient is considered. Effectiveness of medical care is known to rest with the cooperation of the patient with his doctor and nurse. When this is not sought by the professional staff, care can

become wasteful, rather than helpful to the patient, and, therefore, wasteful also to the community.

CHAPTER II

COMPARISON OF ONE HUNDRED PREMATURELY DISCHARGED PATIENTS WITH ONE HUNDRED ROUTINELY DISCHARGED PATIENTS AT LOUISVILLE GENERAL HOSPITAL

In this chapter the control and study groups of patients discharged under the policy of curtailment of ward service at General Hospital will be compared. The primary focus of the study is on objective measures of service to the patient groups, such as length of hospital stay, type of medical or surgical care received, condition at discharge, frequency of readmissions, and frequency and extent of clinic attendance. These factors have a bearing upon the recovery of any surgical patient, and are factors which can be compared statistically although they are not subject to correlation with results of medical care in so small a study group.

The patients in both study and control groups were from the white and Negro surgical wards caring for both sexes. Table 1 gives the sex and color distribution of the study group of 100 prematurely discharged patients and of the control group of 100 routinely discharged patients. Both these groups of patients were cared for on the wards and discharged from the hospital at the same time, during July and August of 1946, immediately after curtailment went into effect. The race and sex

TABLE 1

RACE AND SEX OF ONE HUNDRED PATIENTS OF LOUISVILLE GENERAL HOSPITAL SURGICAL WARDS PREMATURELY DISCHARGED DURING JULY AND AUGUST 1946 COMPARED WITH ONE HUNDRED PATIENTS DISCHARGED ROUTINELY IN SAME PERIOD

Prematurely Discharged				Routinely Discharged			
Race	Sex			Race	Sex		
	Total	Male	Female		Total	Male	Female
Total	100	60	40	Total	100	46	54
White	58	42	16	White	52	21	31
Negro	42	18	24	Negro	48	25	23

distribution is similar for the two groups although there are minor differences.

It should be noticed in Table 1 that there are more males in the prematurely discharged group and more females in the routinely discharged group. When sex and race are considered together it can be seen that the Negro patients routinely were more equally distributed between male and female wards than was true of the prematurely discharged patients. Conversely for the white group of prematurely discharged patients there were a majority of males over females, with the females having a preponderance of routinely discharged patients. Reasons for these differences will be shown in the analysis of the length of stay per diagnosis.

The color distribution is quite similar for the control and the study groups although it is more nearly equal in the routinely discharged group, especially as between the sexes. Color distribution is not significant in the comparison of the group. As will be shown later the

diagnosis, which determined the average length of hospital care required, as well as the extent of clinic attendance, was much more important in determining premature discharge than any factor of sex or of color.

TABLE 2

AGE DISTRIBUTION OF ONE HUNDRED PREMATURELY DISCHARGED PATIENTS AND OF ONE HUNDRED ROUTINELY DISCHARGED PATIENTS FROM LOUISVILLE GENERAL HOSPITAL IN JULY 1946

Age	Prematurely Discharged	Routinely Discharged
Under 21 years	18	16
21 under 41 years	36	39
41 under 61 years	27	27
61 under 81 years	15	16
Over 81 years	4	2
	100 patients	100 patients

Table 2 above shows that eighteen of the one hundred prematurely discharged patients and sixteen of the one hundred routinely discharged patients were children or adolescents below the age of twenty years. Curtailment of pediatric ward service made occasional admissions of children under fourteen years of age necessary in emergency surgical cases, as only four white pediatric beds were left after July 11, 1946.

In the prematurely discharged group an almost equal number of patients, nineteen in all, appeared in ages beyond sixty years; whereas eighteen of those patients routinely discharged fell in these age intervals. The exact figures for the study and control groups may be seen in the accompanying Figure 1 on age distribution. Here it can be seen that

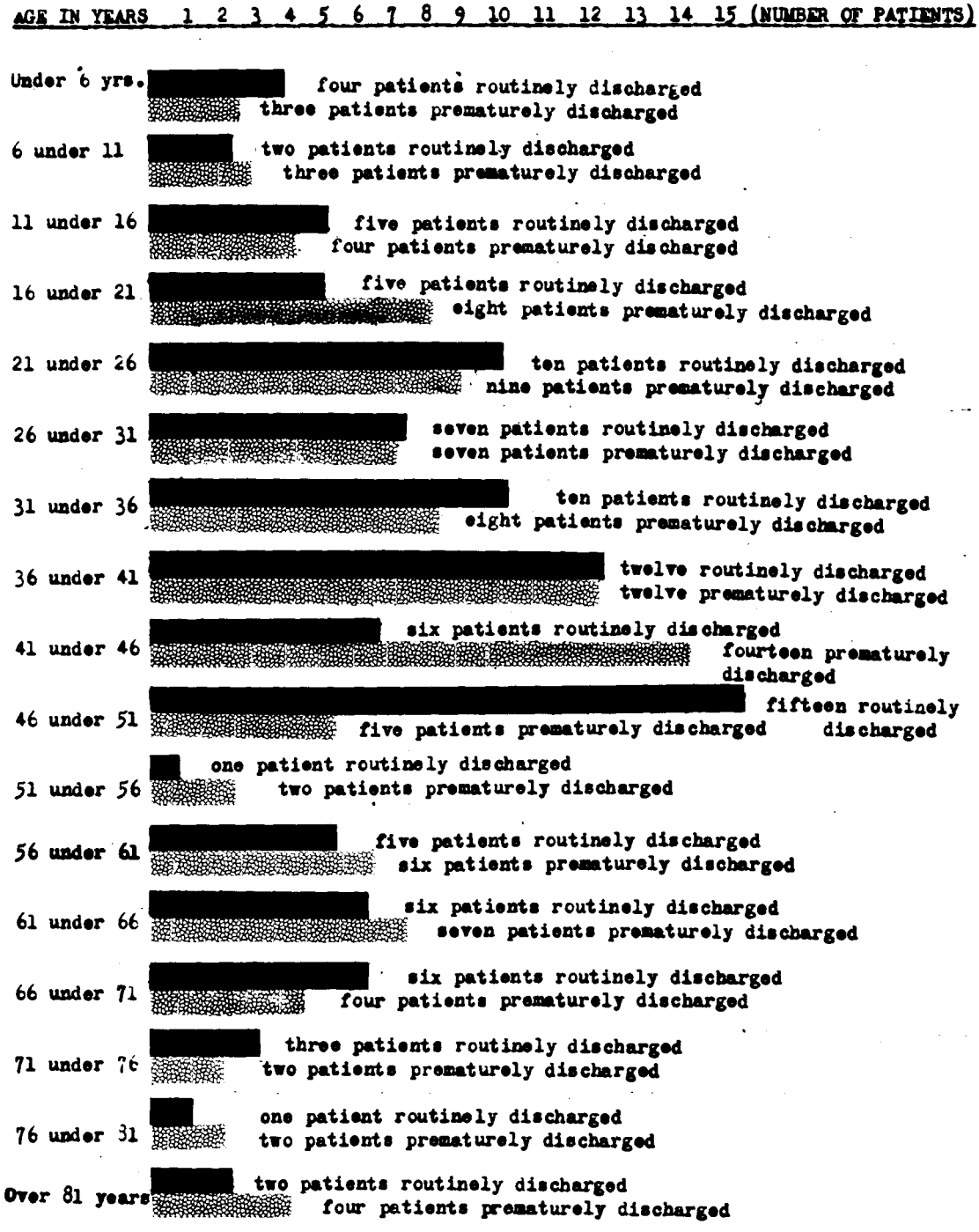

Fig. 1.--One hundred prematurely discharged patients compared with one hundred routinely discharged patients from Louisville General Hospital in July 1946 by age distribution.

the groups were roughly similar in age distribution. There were few old people, compared to the large group in both study and control groups who were of mature, productive years. Almost equal numbers, sixty-three prematurely discharged patients and sixty-six routinely discharged patients, fell between the ages of twenty-one and sixty years, the age of greatest economic productivity.

The fact that there were so few patients over sixty-five years of age may be explained by the fact that we are studying patients of an acute surgical service. Persons in this age group are less likely to suffer from diseases requiring surgical treatment, on an emergency basis. Most of them require treatment for chronic diseases which is more frequently given on the medical wards. This was even more true during curtailment. Actually, because of the curtailment of medical service on medicine to a minimum, chronic disease sufferers cannot be treated at Louisville General Hospital in any substantial numbers.

However, some of the surgical patients studied were chronically ill persons hospitalized for treatment of an exacerbation of a chronic condition, or for an acute illness or accident not associated with the chronic disease. Primarily, however, the patients in our groups were active, young and middle-aged persons, suffering from acute illness or from accidental injuries.

The age of patients becomes important under some circumstances. Disability due to accident, or following an operation, becomes a very much more serious problem to the men between twenty and sixty years of age who have a family to support, than it is to a young child whose

support is assured whether he is ill or not. The single man over sixty, who is employed, is also greatly handicapped by illness. However, for the most part, the men in the study group of prematurely discharged patients over sixty-five years of age were not gainfully employed. Many of the older women, likewise, were no longer in the labor market, being provided for by relatives, savings, insurance, or relief funds from the community.

It is the younger women, for whom illness means loss of working time in the home, or in outside employment, that suffer most from acute illness. For them the number of days spent in bed is crucial. It may mean the loss of a job, going into debt, or letting the house and children suffer for lack of care and supervision.

For such a group of mature, productive people an acute or chronic illness, requiring even a short hospitalization and an extended period of convalescence at home after discharge, is a catastrophe. The members of this group are frequently sole wage-earners for a family, and are most seriously handicapped if illness becomes permanent disability, or a chronic disturbance of general health and physical or emotional efficiency.

STATISTICS ON LENGTH OF HOSPITAL STAY FOR STUDY AND CONTROL GROUPS

The hypothesis on which this study of premature discharges was undertaken was that curtailment made certain differences in the treatment of patients at General Hospital, after July 1946, and that these differences could best be illustrated by the service rendered the patients who were selected by the doctors for premature discharge. Therefore, a

comparison of length of hospital stay was made for the study and control groups as a whole, first; then by ward divisions; then by presence or absence of an operation or actual surgical intervention of any kind; and finally by special services and individual diagnoses.

For the four surgical wards, white and colored, male and female, it was found that one hundred patients prematurely discharged had totalled 1,055 days of hospital care, an average of about ten and one-half days per patient. This includes the entire one hundred patients. In this group there were several patients who were discharged before they should have been in the opinion of the doctor, but who remained in the hospital wards, principally because they had no home or community resource in which to spend their convalescence. When these persons are excluded from the count, the general average for all prematurely discharged patients was found to be almost nine days.[1]

The one hundred routinely discharged patients stayed a total of 1,264 days or an average of almost twelve and two-thirds days. However, when the unusual case in this group is discarded[2] the average becomes just a little over eleven hospital days for ninety-nine routine discharges.

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[1]These patients were older than the average age for prematurely discharged group, and suffered with complicated illness, prostatectomy, with acute urinary retention and extravasation (a complication which requires extended care and bedside nursing); cholecystectomy, complicated by food retention difficulties which could not be managed at home; gastrostomy following lye poisoning to throat, stomach and mouth, and which later necessitated rib resection; and a radical mastectomy for carcinoma of the breast.

[2]This patient stayed 165 days for diabetes, otitis and a degenerative condition of the liver, before his routine discharge.

In considering these average lengths of hospital stay it should be noted that there were in the routinely discharged group (as in the prematurely discharged group) a great many patients who stayed two days or less, and yet were discharged according to medical advice, their hospital treatment considered at an end. Therefore, a majority of patients stayed less than five days, whether their discharge was considered by the medical staff premature or routine. For instance, fifty-nine of the routinely discharged patients stayed less than five days, while forty-three of the prematurely discharged patients stayed less than five days in the hospital for their original admission.

Tables 3 and 4 show the length of hospital stay for certain special services, for the prematurely and routinely discharged groups under consideration. They show that in general the larger groups of patients from either group who stayed under five days were those on the general surgery service. Proportionate groups in study and control groups stayed relatively short stays on orthopedic service, with a few more hospitalizations between eleven and fifteen days for the prematurely discharged group than for the routinely discharged group, contrary to expectation. There is a considerable difference in the stay of the several eye patients and general medical service patients in the study and control groups; there are more longer stays in the routinely discharged groups than in the prematurely discharged groups. Genito-urinary patients stayed for longer stays in the prematurely discharged than in the routinely discharged group. It was the gynecology service which showed the greatest difference in length of original stay. The stays were longer in the prematurely

TABLE 3

LENGTH OF HOSPITAL STAY FOR ONE HUNDRED PATIENTS PREMATURELY DISCHARGED FROM LOUISVILLE GENERAL HOSPITAL, JULY 1946, ACCORDING TO SPECIAL SURGICAL SERVICE

	Number of Patients on Special Surgical Services							
Days Stay	Gen. Surg.	Ortho.	Gyn.	Gen. Med.	Eye	Proctol-ogy	Genito-Urinary	Interval Totals
0 thru 5 days	18	15	3	1	1	4	1	43 patients
6 thru 10 days	9	4	7	2	1	1		24 patients
11 thru 15 days	4	8	4	1				17 patients
16 thru 20 days			1					1 patient
21 thru 25 days	2		2					4 patients
26 thru 30 days	1			1				2 patients
31 thru 35 days	1						1	2 patients
36 thru 40 days							1	1 patient
41 thru 45 days		1					2	3 patients
46 thru 50 days	1							1 patient
51 thru 55 days	1							1 patient
56 thru 60 days								0 patients
61 thru 65 days		1						1 patient
Totals	37 pts.	29 pts.	17 pts.	5 pts.	2 pts.	5 pts.	5 pts.	100 patients
Total days per special service	368 days	290 days	175 days	55 days	8 days	21 days	159 days	1076 days for 100 patients

TABLE 4

LENGTH OF HOSPITAL STAY FOR ONE HUNDRED PATIENTS ROUTINELY DISCHARGED FROM LOUISVILLE GENERAL HOSPITAL, JULY 1946, ACCORDING TO SPECIAL SURGICAL SERVICE

	Number of patients on Special Surgical Services								
Days Stay	Gen. Surg.	Ortho.	Gyn.	Neuro.	Gen. Med.	Eye.	Proct.	G-U.	Interval Totals
0 thru 5 days	32	13	6	2	3	2	1		59 patients
6 thru 10 days	6	3	5	3		1		1	19 patients
11 thru 15 days	2	2	1	1		3			9 patients
16 thru 20 days	1								1 patient
21 thru 25 days	1							1	2 patients
26 thru 30 days								1	1 patient
31 thru 35 days	1	1			1	1			4 patients
36 thru 40 days	1								1 patient
41 thru 45 days	1								1 patient
46 thru 50 days								1	1 patient
51 thru 55 days									0 patients
56 thru 60 days	2								2 patients
61 thru 65 days									0 patients
Over 65 days					1*				1 patient
Totals	46 pts.	19 pts.	12 pts.	6 pts.	5 pts.	7 pts.	1 pt.	4 pts.	100 patients
Total days per special service	676 days	102 days	70 days	27 days	201 days	85 days	4 days	105 days	1270 days for 100 patients

*This patient had diabetes, otitis, and a degenerative condition of the liver, which necessitated his staying in the hospital for 165 days before routine discharge.

discharged group than in the routinely discharged group of patients; contrary to expectation, as half of the routinely patients on this service stayed less than five days, as compared with about one-sixth of the prematurely discharged group of gynecology patients who stayed this short a stay. While half of the routinely discharged gynecology patients were in the hospital between six and fifteen days, eleven of the seventeen prematurely discharged groups on this service stayed this length of time, for their original admission, and three more prematurely discharged patients stayed between sixteen and twenty-five days. When the total number of days is computed for each service it may be seen that general surgery, eye, general medical patients stayed longer in the routine group, and the other services in the premature group of patients.

When one hundred patients prematurely discharged were interviewed and their medical records were checked, it was found that twenty-four patients on female surgical ward stayed an average of eleven and seven-twelths days. This was a longer average than that of the female white group, who stayed eight and three-sixteenths days on the average. Together the female patients, whether white or colored averaged about ten days. The general male average for colored and white patients was ten. The colored men in the study group stayed seven and one-half days, and the white men stayed longer, twelve and one-sixth days. The accompanying table shows the relationship of color and sex to length of stay for the study group of prematurely discharged patients.

Before proceeding with an analysis of the length of stay obtaining in study and control groups for certain specific diagnoses, it is

interesting to see what special services claimed our patients in both groups. For the purposes of this study the patients were divided into those on general surgery, including many operations, not localized to any portion of the body, and to certain accidental injuries, etc., and illness which may be best classified as general surgery. The other specialities are orthopedics; gynecology; neuro-surgery, involving brain, spinal and other work with nerve centers; eye; proctology; and genito-urinary services. For purposes of clarification of the meaning to the surgical wards of curtailment, another group must be included; the patients admitted to surgery because of overcrowding of the medical wards; who were not in need of surgery. As they were admitted to surgical rather than to medical service, they became a small part of the study and control groups. Table 5 shows the comparative numbers of patients admitted to each special service of surgery.

From the accompanying Table 5 it is interesting to note that the numbers admitted to those specialties claiming the smaller number of patients are roughly similar for the two groups however discharged. Thus General Medicine claimed five prematurely and five routinely discharged patients, while proctology, genito-urinary and eye service also claimed very few patients from each group. In other words, the same services claimed the greater proportion of both groups of patients.

The diagnoses of the two groups of patients are practically identical, whether the patients were discharged prematurely or routinely. Most of gynecological patients, for instance, were treated for conditions which necessitated hysterectomies, and the genito-urinary patients were

TABLE 5

GENERAL HOSPITAL'S SURGICAL SERVICES ON WHICH ONE HUNDRED PREMATURELY DISCHARGED PATIENTS AND ONE HUNDRED ROUTINELY DISCHARGED PATIENTS WERE ADMITTED IN JULY 1946

PREMATURELY DISCHARGED		ROUTINELY DISCHARGED	
TOTAL	100	TOTAL	100
General Surgery*	37		46
Neuro-surgery	2		6
Orthopedics	27		19
Gynecology	17		12
General Medicine (non-operative surgery)	5		5
Eye	2		7
Proctology	5		1
Genito-Urinary	5		4

*The totals are compiled for incidence of primary diagnosis. There were several patients with multiple diagnoses, particularly many of gynecology patients, who were hospitalized for fibroid tumors, salpingitis, ovarian cysts, and who underwent hysterectomies and cauterizations of the cervix.

The incidence of diagnoses can be found in later tables.

usually in the hospital because of acute urinary retention with extravasation or prostatectomy with complications. Practically all the orthopedic patients in both groups were in the wards because of accidental fractures, although there were a few cases of osteomyelitis, synovectomy, and capsulotomy in the prematurely discharged group. Neuro-surgery beds were occupied by accident cases, usually of children, with fracture of skull, suspected or proven by X-ray studies. General medical patients had a variety of diagnoses, usually carcinoma, diabetes or some complication of these diseases. In the two groups of patients the portion of those on orthopedics and those on general surgery are reversed for prematurely and routinely discharged groups.

The specialties are allotted a certain number of beds, according to the expected number of patients per service, and the expected turnover, for such patients. For instance, ten beds are reserved for elective hysterectomies, but other services are not so fortunate. In fact, gynecology is the only service with reserved beds for a certain class of patients. The beds on surgery have to be devoted largely to accidental injuries, as Table 5 shows, and to emergency surgery, which together account for the preponderance in both study and control groups of patients on orthopedics and general surgery.

When diagnoses are considered, it is interesting to note that in the prematurely discharged group twenty-six of twenty-nine patients on orthopedic service were fracture cases; in the routinely discharged group sixteen of the nineteen orthopedic patients suffered fractures. For the prematurely discharged patients the most frequent reason for their

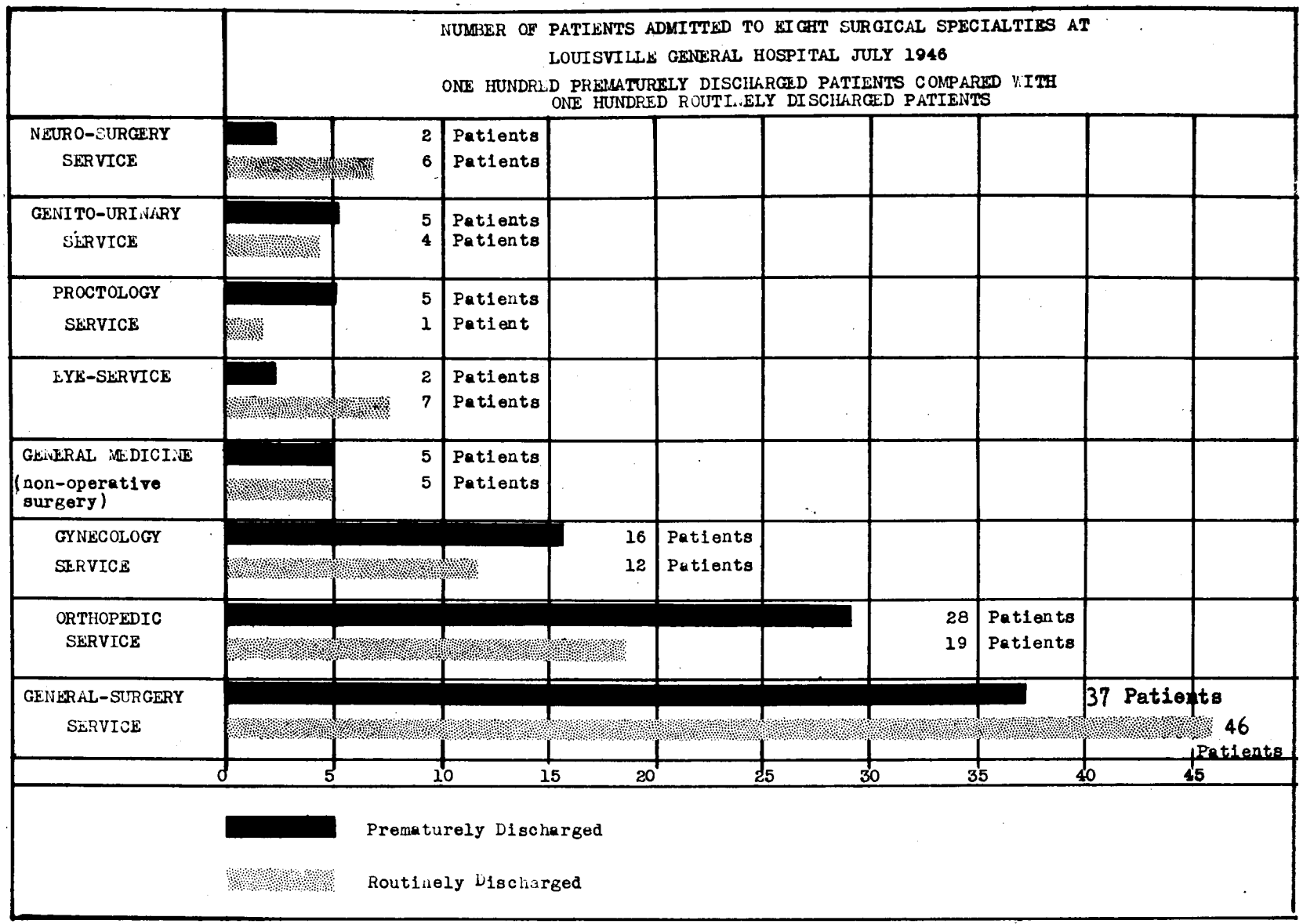

Fig. 2.--Comparison of prematurely and routinely discharged patients by number of patients admitted to surgical services at Louisville General Hospital, July 1946.

hospitalization on gynecology service was for hysterectomy, which claimed thirteen of seventeen gynecological patients. In the control group of routinely discharged patients only two of the twelve gynecology patients were hospitalized for this reason. The average stay for patients in this prematurely discharged group was longer, fourteen days, than for the two routinely discharged patients, for what reason it could not be determined.

In the division of general surgery the prematurely discharged patients with amputations and herniorrhaphies stayed longer than other patients on the service. In this division second degree burns, breast disorders and cellulitis patients had the longest period of original hospitalization among general surgery patients routinely discharged.

The length of stay for special services on surgery for prematurely discharged patients are found in the following tables, showing incidence of diagnosis and total hospital stay for the special services. Similarly, the length of stay per service and diagnosis is analyzed in duplicate tables for routinely discharged patients.

In the prematurely discharged group amputations and herniorrhaphies required the longest average stays in division of general surgery. Fractures and hysterectomies were the next two most costly diagnoses in terms of length of original hospitalization, if the unusually long hospitalizations for genito-urinary disturbances are discarded from the one hundred prematurely discharged patients. If they are included the five patients on genito-urinary service had the longest average stay of all prematurely discharged patients, thirty-one and one-half days.

The figures on length of stay for various types of fractures require some explanation. Fractures of the leg and hip accounted, among those prematurely discharged, for an average stay of about nine days per patient, while arm fractures or those of the wrist required only three days or so. Obviously the patient with a broken leg or hip in long leg cast or traction is much more difficult to care for at home and requires skilled nursing care longer because he is helpless. Skull fractures, on the other hand, left the hospital soon after admission to neuro-surgery. According to the medical records, in most cases this was because many of these patients were admitted in shock immediately after an accident before X-ray studies were complete; when X-ray studies proved negative, in a majority of prematurely discharged patients, they were discharged and not held for the customary period of longer observation. Routinely and prematurely discharged patients with skull fractures were kept approximately the same average, between one and two days.

Average length of stay for those illnesses which caused the longest or most frequent hospitalizations were compared with the statistics of New York City municipal and voluntary hospitals, which were compiled for discharges from all types of hospitals in the New York metropolitan area in 1933.[3] In the appendix a comparison of these figures is made. In general Louisville's average stays for both prematurely and routinely discharged groups of patients in the summer of 1946 are much shorter than corresponding hospitalizations for similar conditions in New York

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[3]Neardorf, Hospital Discharge Study, (New York Welfare Council, 1933), Appendix X, Vol. I.

thirteen years ago. Part of this may be due to the general trend in hospital surgery to dismiss patients earlier. However, the results of this comparison of hospitalizations per diagnosis show the great difference curtailment has meant to Louisville patients.

Average stay for certain illnesses and operations apparently causing the longest hospitalizations among prematurely discharged patients were compared to the statistics of New York City's municipal and voluntary hospitals, which were compiled for discharges from all hospitals in the metropolitan area in 1933. In general the averages for Louisville General Hospital are shorter than the New York averages. This is to be expected for routinely discharged patients as well as prematurely discharged patients of the Louisville study, because of the curtailment policy which affects all groups in the hospital. There is also the factor of the change in surgical practice since 1933 when the New York figures were collected; many more surgeons are urging even private patients to recuperate faster than they did a decade ago. However, it is still a great differential between New York and Louisville patients with the same diagnosis.

The comparison of certain diagnoses' average hospitalizations in New York and Louisville may be examined in detail in the appendix. From the facts certain groups of patients appear to be particularly affected. The patients with possible skull fractures were the most notably disparate groups. As the general average for Louisville patients routinely discharged was only 6 1/6 days, while in New York 62% of the patients with this diagnosis were in the hospital from 15 to 30 days and 19% from

8 to 14 days, while another 12½% were in the hospital from 31 to 60 days.[4] Fractures of the skull in New York ranked first in mortality rates among this group of patients studied from all voluntary and municipal hospitals in 1933, with 29.1% of the patients dying, while fractures of pelvis and spine followed in very much lower figures.[5] Seventy of the 1,661 deaths in New York which were due to fractures of any kind concerned children under five years of age, and 50 of these deaths were due to fractured skulls. In Louisville in a group of 315 prematurely discharged patients studied in the course of this investigation, under curtailment since July 1946, there were several children admitted with possible skull fractures, later proved negative or not serious by X-ray studies, and the patients were almost all sent home with a stay under five days in the hospital, and an average stay of about 1½ days. In New York it was found in 1933 that 90% of all the deaths due to skull fracture occurred shortly after hospital admission, and 72½% of those due to fracture of pelvis, and about 58% of those to fracture of the spine also occurred in the first week after hospital admission. Thus the Louisville staff's decisions to send persons home prematurely was based on previous practice with these patients. If death did not occur suddenly or during the first week after admission, there was reasonable safety in returning the patient prematurely to his home, to await observation of further difficulty. In New York it was found in fracture cases that the danger of death from fracture

[4] Ibid.

[5] Ibid., Vol. II, p. 114.

of any site, particularly of skull fractures decreased steadily and quickly after the first week following the accident and emergency admission.[6] In Louisville there were many possible skull fractures ruled out from emergency slinic, which were not admitted at all to the crowded wards and, therefore, were not part of this study; this fact makes absolute comparison between Louisville and New York patients impossible.

In general the New York study concerning length of hospital stay was quite interesting, as they could compare such factors as economic bracket, place of residence in the metropolis, type of diagnosis, and age for all their patients in voluntary and municipal hospitals alike.[7] They found that "the main determinant of length of stay was the diagnosis of the patient."[8] Among diagnostic groups where the majority of discharges occurred in first week of hospitalization were chronic infectional hypertrophy of tonsils and adenoid, non-malignant neoplasms, fractures of the upper extremity, abortions, malignant neoplasms, deflection of the septum, and hemorrhoids. As they point out these are not all minor conditions; but sometimes, as in the case of the cancer patients, indicate "transitional hospitalization during the lengthy course of the sickness."[9] Malignant neoplasms were also in the top of the list of diagnoses causing over-long hospitalizations, two months or more;[10] as were fractures of the

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[6] Ibid., Vol. II, p. 114.

[7] Ibid., Vol. I, p. 113, ff.

[8] Ibid., p. 110

[9] Ibid., p. 111

[10] Ibid., p. 111

lower extremity, tuberculosis of the respiratory system, osteomyelitis, etc. In the New York group over-long stays were not always due to chronic disease, but often to protracted hospitalization for typical acute conditions, such as fracturs of the hip or pelvis. In New York a direct correlation between age and length of hospital stay was shown, and there were increasingly higher proportions of longer stays in each of their diagnostic groups as age advanced.[11] Contrary to the New York investigator's expectations, financial status was not found to correlate with length of stay for certain diagnoses.

The New York study was not able to distinguish in the matter of readmissions which patients were readmitted to hospitals for the same illness (a matter of transfer, occurring very seldom in Louisville, where there is but one municipal hospital) and those readmitted to other hospitals for recurrences or complications of the original illness. Therefore, their figures are not meaningful to their study as a whole, nor to us in comparing Louisville's experience on readmissions to General Hospital.

The consensus in the New York study on length of stay is worth noting:[12]

> Length of stay for non-operative patients covers a variety of situations such as those of the patients who came to the hospital for final diagnostic statements, patients who started a medical therapeutic treatment there to be continued at home, and patients who have to be hospitalized for a protracted medical treatment. . . .
> In most instances of major surgery, hospital service of two to four weeks is needed to provide patients with the necessary post-operative care. In case of appendectomy, surgical technique has been developed

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[11] Ibid., p. 113.

[12] Ibid., Vol. III, pp. 77-78-79.

> to such an extent that most of these patients may leave after less than two weeks' stay, in many instances about eight days after the operation. Approximately 25% of patients. . . .operated in a non-acute stage and thus presenting favorable conditions for rapid recovery, were discharged within the first two weeks. . . .Data on length of stay of operated patients are significant for the post-operative care of the conditions involved. . . . .

In considering the accompanying tables on average length of hospitalization for diagnostic groups in the study group of prematurely discharged patients it is interesting to compare them with the companion tables on the one hundred routinely discharged patients in the control group. The premature group actually had longer average admissions to general surgery special service for four diagnostic groupings: lacerations and abscesses; hernias; stab and gunshot wounds; and appendicitis and appendectomy. The routinely discharged group had longer average stays in this division for amputations and the category "all other diagnoses." The range of stay was very widespread as was shown in Tables 3 and 4.

When the average length of hospital stay for patients admitted on orthopedic service is compared for study and control groups, it can be seen that on the average the prematurely discharged patients stayed for four days longer on the wards than the routinely discharged patients were kept on this special surgical service. Routinely discharged patients stayed on the average about half the average stay of the prematurely discharged patients, though prematurely discharged patients with arm and wrist fractures were discharged after twice the average length of hospitalization of patients in this category who were routinely discharged. Routinely discharged patients stayed an average of two more days, or one-third again as long, as the prematurely discharged patients. However,

TABLE 6 PART I

INCIDENCE OF DIAGNOSES BY TYPE OF SURGICAL SPECIALTY: GENERAL SURGERY[a] FOR ONE HUNDRED PATIENTS PREMATURELY DISCHARGED IN JULY AND AUGUST 1946 SHOWING LENGTH OF AVERAGE STAY AND TOTAL DAYS STAY PER DIAGNOSTIC GROUP

Diagnosis	No. of Patients	Average Length of Hospital Stay by Days	Total Days Stay
Total	37	General Average 10 da.	368 days
Lacerations, with repair	8	2 3/4 days	22 days
Hernias and herniorrhapy	7	14 days	99 days
Stab wounds	4	3 3/4 days	15 days
Appendicitis, appendectomy	3	8 2/3 days	26 days
Ulcer, skin graft	3	4 2/3 days	14 days
Amputations	2	27 1/2 days	55 days
All other diagnoses[b]	10	13 7/10 days	137 days

[a]Cf. Part IV from which the number of patients on the service is taken. Similar tables will be shown immediately for the other specialties.

[b]These diagnoses included four unusually long stays for gastrostomy, cholescystectomy, cellulitis and burns with grafting (patients already mentioned in the foregoing computation of the average length of stay). This group also included, however, diagnoses requiring short stays ranging from one day through seven days for other patients, having a variety of diagnoses, including mastectomy, trigeminal neuralgia, excision of sebaceous cyst, etc.

the general average for orthopedics as a whole show that the prematurely discharged patients were hospitalized 10 days while routinely discharged patients were hospitalized an average of 6 days. Therefore, total days stay was greater for the study group of prematurely discharged patients than for the orthopedic patients in the routinely discharged category.

TABLE 6 PART II

INCIDENCE OF DIAGNOSES BY TYPE OF SURGICAL SPECIALTY: ORTHOPEDIC SERVICE* FOR ONE HUNDRED PATIENTS PREMATURELY DISCHARGED IN JULY AND AUGUST 1946 SHOWING LENGTH OF AVERAGE STAY AND TOTAL STAY PER DIAGNOSTIC GROUP AT LOUISVILLE GENERAL HOSPITAL

Diagnosis	No. of Patients	Average Length of Hospital Stay by Days	Total Days Stay
Total	29	General Average 10 Da.	290 days
Fractures 26			
fractures of leg, hip	17	15 days	234 days
fractures of arm, wrist	3	6 2/3 days	20 days
fractures of skull	2	1 1/2 days	3 days
fractures of other bones	4	3 1/2 days	13 days
Osteomyelitis	1	4 days	4 days
Capsulotomy of Knee Cap	1	12 days	12 days
Synovectomy of Knee Cap	1	4 days	4 days

*Cf. Part IV from which the number of patients is taken. Cf. Part I. The range of stay on orthopedic service was from one day through sixty-four days.

This same thing is shown by the table on the next page on gynecology patients' average stay in the premature group, and in its companion table on routinely discharged patients. The total days stay is more than twice as great for prematurely discharged patients on this specialty as for routinely discharged patients. Again we find the general average for prematurely discharged gynecological patients with hysterectomy or other diagnosis is much longer than for routinely discharged patients; eleven days average as against five and five-sixths days for routine group. Hysterectomies were the only strictly comparable single diagnostic groups

TABLE 6 PART III

INCIDENCE OF DIAGNOSES BY TYPE OF SURGICAL SPECIALTY: GYNECOLOGY* FOR ONE HUNDRED PATIENTS PREMATURELY DISCHARGED JULY 1946, SHOWING LENGTH OF HOSPITAL STAY BY AVERAGE NUMBER OF DAYS AND TOTAL STAY LOUISVILLE GENERAL HOSPITAL

Diagnosis	No. of Patients	Average Length of Hospital Stay by Days	Total Days Stay
Total	17	General Average 11 Da.	175 days
Hysterectomy	13	13 3/4 days	165 days
Pelvic Inflammatory Disease	3	2 2/3 days	8 days
Foreign Body in Uterus	1	2 days	2 days

*The remaining services with a small number of patients per service will be tabulated in Part IV, by service rather than by individual diagnoses.

common to both control and study groups. Besides this diagnostic group, however, other groups spent longer in the hospital in the routinely discharged group than in the prematurely discharged group. The severity of the routine patients' diagnoses is probably the explanation of this fact.

Other specialties on surgery present an interesting comparison between average length of hospitalization for patients in the study and control groups. For General Medicine (or non-operative surgery) the average stay of the prematurely discharged patients was eleven days, and of the routinely discharged group, forty days, principally because of one patient who had to stay 165 days. Routine stays on eye service were longer than prematurely discharged patients spent. Proctology had so few patients no real average could be computed, but the figures were similar

TABLE 6 PART IV

INCIDENCE OF PATIENTS ON SPECIAL SURGICAL SPECIALTIES: GENERAL MEDICINE (NON-OPERATIVE SURGERY), EYE, PROCTOLOGY, AND GENITO-URINARY SERVICES SHOWING LENGTH OF HOSPITAL STAY BY AVERAGE NUMBER OF DAYS STAY AND TOTAL STAY LOUISVILLE GENERAL HOSPITAL FOR PREMATURE DISCHARGES

Surgical Service	No. of Patients	Average Length of Hospital Stay by Days	Total Days Stay
Total[a]	100	General Average 10 3/4 days	1076 days
General Medicine (Non-operative surgery)	5	11 days	55 days
Eye Service	2	4 days	8 days
Proctology Service	5	4 1/5 days	21 days
Genito-Urinary Service	5	31 1/2 days	159 days
Total for General Surgery[b]	37	10 days	368 days
Total for Orthopedics[c]	29	10 days	290 days
Total for Gynecology[d]	17	11 days	175 days

[a]This figure is the grand total for all special services, included in the four separate parts of this sectional table.

[b]Totals transferred from Part I of the table for cumulative total.

[c]Totals transferred from Part II.

[d]Totals transferred from Part III.

for the two groups. Genito-urinary stays were invariably long in both groups, being several days longer in the prematurely discharged group than in the routine discharges. There was only one neuro-surgical patient in the premature group, and he was counted in general surgery for

TABLE 7 PART I[a]

INCIDENCE OF DIAGNOSTIC GROUPINGS BY SPECIAL TYPE OF SURGERY
GENERAL SURGERY
FOR ONE HUNDRED PATIENTS ROUTINELY DISCHARGED IN JULY AND AUGUST 1946 SHOWING LENGTH OF STAY (AVERAGE) AND TOTAL STAY PER DIAGNOSTIC GROUP AT LOUISVILLE GENERAL HOSPITAL

Diagnostic Group on Special Service[b]	No. of Patients	Average Length of Hospital Stay by Days	Total Days Stay
Total	46	General Average 9 Da.	409 Days
Lacerations, abscess	10	1 3/5 days	16 days
Herniorrhaphies	1	1 day	1 day
Stab, and gunshot wounds	5	1 4/5 days	9 days
Appendicitis, appendectomy	4	6 1/4 days	25 days
Ulcer, burn and grafting	1	37 days	37 days
Amputations	5	3 3/5 days	18 days
All other diagnoses[c]	20	15 1/7 days	303 days

[a]Cf. Table 6, Part I, which is a companion table to this table, giving comparable figures for the 37 patients prematurely discharged on General Surgery service during the same period of time.

[b]In the accompanying tables on routine discharges, gynecology, orthopedics, will be separated as General Surgery is here, by typical diagnoses; while proctology, eye, genito-urinary, neuro-surgery will only be summarized as they account for few patients.

[c]These diagnoses included unusually long stays for cellulitis of the ankle with skin graft; cystic breast; eczema of breast; thoracotomy; vagotomy for duodenal ulcer; and gasteroenterostomy for duodenal ulcer and stenosis of the jejunum; who were mentioned in the computation of average stay for this entire group of routine discharges. They may be compared with the four prematurely discharged patients whose diagnoses are given in Footnote b of Table 6, Part I. This group included also, several patients who stayed only one day, as in cases of tuberculous abscess of the neck, (inoperable); tenorrhaphy; or two days, as early gangrenous diabetes; and tenorrhaphy of the finger.

TABLE 7 PART II

INCIDENCE OF DIAGNOSTIC GROUPS BY TYPE OF SURGICAL SPECIALTY: ORTHOPEDICS* FOR ONE HUNDRED PATIENTS ROUTINELY DISCHARGED IN JULY AND AUGUST 1946 SHOWING LENGTH OF AVERAGE LENGTH OF STAY AND TOTAL STAY PER DIAGNOSTIC GROUP LOUISVILLE GENERAL HOSPITAL

Diagnosis	No. of Patients	Average Length of Stay by Days	Total Days Stay
Total	19	General Average 6 Da.	114 Days
Fractures 17		6 days	105 days
fractures of leg, hip	11	7 days	78 days
fractures of arm, wrist	2	3 days	6 days
fractures of other bones	4	5 1/4 days	21 days
Tenosynivitis	1	3 days	3 days
Osteotomy of tibia	1	6 days	6 days

*Cf. similar table on premature discharges on orthopedics, Table 6, Part II.

The range of stay on orthopedic service for this group of routine discharged was from one day, as in cases of fractured ankle and fractured clavicle, to thirty-two days for a fractured femur. This range was actually not so great as in the case of the twenty-nine orthopedic patients who were discharged prematurely (range from one day through sixty-four days).

that reason. The neurological group of six patients routinely discharged stayed an average of six and one-sixth days.

All in all the average lengths of stay for premature patients were ten and three-fourths days, as compared with twelve and seven-tenths days in the routinely discharged group. However, in many categories of specific diagnoses, and on services which only admitted a small number of patients, the premature patients averaged longer hospitalizations than did patients with the same diagnoses in the routinely discharged group.

TABLE 7 PART III

INCIDENCE OF DIAGNOSTIC GROUPS BY TYPE OF SURGICAL SPECIALTY: GYNECOLOGY FOR ONE HUNDRED ROUTINELY DISCHARGED PATIENTS IN JULY AND AUGUST 1946 SHOWING LENGTH OF AVERAGE STAY BY DAYS AND TOTAL LENGTH OF STAY LOUISVILLE GENERAL HOSPITAL

Diagnosis	No. of Patients	Average Length of Stay by Days	Total Days Stay
Total	12	5 5/6 days	70 Days
Hysterectomy	2	11 1/2 days	23 days
Abortions (and miscarriage)	4	5 3/4 days	23 days
Cautery of cervix	2	6 1/2 days	13 days
Carcinoma of cervix (radium therapy)	1	7 days	7 days
Other diagnoses*	3	4 2/3 days	14 days

*This grouping included all other patients, cases suspension of the uterus, endometrial hyperplasia for dilatation and curettage, and cervical strain.

Important as the length of hospitalization is the length of time which elapses between an operation and discharge. In the case of prematurely discharged patients this factor should be of even greater importance than for the routinely discharged patient, for the general well-being of the patient, and considering his care at home after discharge. In Table 8 are figures for one hundred patients who were prematurely discharged. Eighteen female surgical colored patients who had operations performed during hospitalization stayed an average of seven and one-sixth days after operation. The twelve patients on male surgical colored ward in the study group, who had operations, stayed seven and one-half days,

TABLE 7 PART IV

INCIDENCE OF PATIENTS ON SPECIAL DIAGNOSTIC SURGICAL SPECIALTIES: GENERAL MEDICINE, EYE, PROCTOLOGY, AND GENITO-URINARY, AND NEURO-SURGERY SERVICES SHOWING LENGTH OF STAY BY AVERAGE NUMBER OF DAYS STAY AND TOTAL STAY AT LOUISVILLE GENERAL HOSPITAL FOR ROUTINE DISCHARGES

Surgical Service	No. of Patients	Average Length of Days Stay	Total Days Stay
Total[a]	100	12 and 7/10ths	1,270 Days
General Medicine (non-operative surgery)	5	40 days[b]	201 days
Eye Service	7	12 1/7 days	85 days
Proctology Service	1	4 days	4 days
Genito-Urinary Service	4	26 1/4 days	105 days
Neurology Service	6	6 1/6 days	37 days
Total for General Surgery[c]	46	9 days	409 days
Total for Orthopedics[c]	19	6 days	114 days
Total for Gynecology[c]	12	5 5/6 days	70 days

[a]This is the grand total for all patients studied of the routinely discharged patients on surgical service, the entire control group.

[b]This average and total is so high in proportion to number of patients on general medicine division of surgical service because of one patient with diabetes, otitis, and degenerative condition of the liver who stayed 165 days.

[c]These totals are transferred from the separate Parts I, II, and III of Table 7 on routine discharges, immediately preceding this comparative table.

after operation. The white men stayed an average of about six and one-half days, and the white women stayed an average of seven and two-fifths

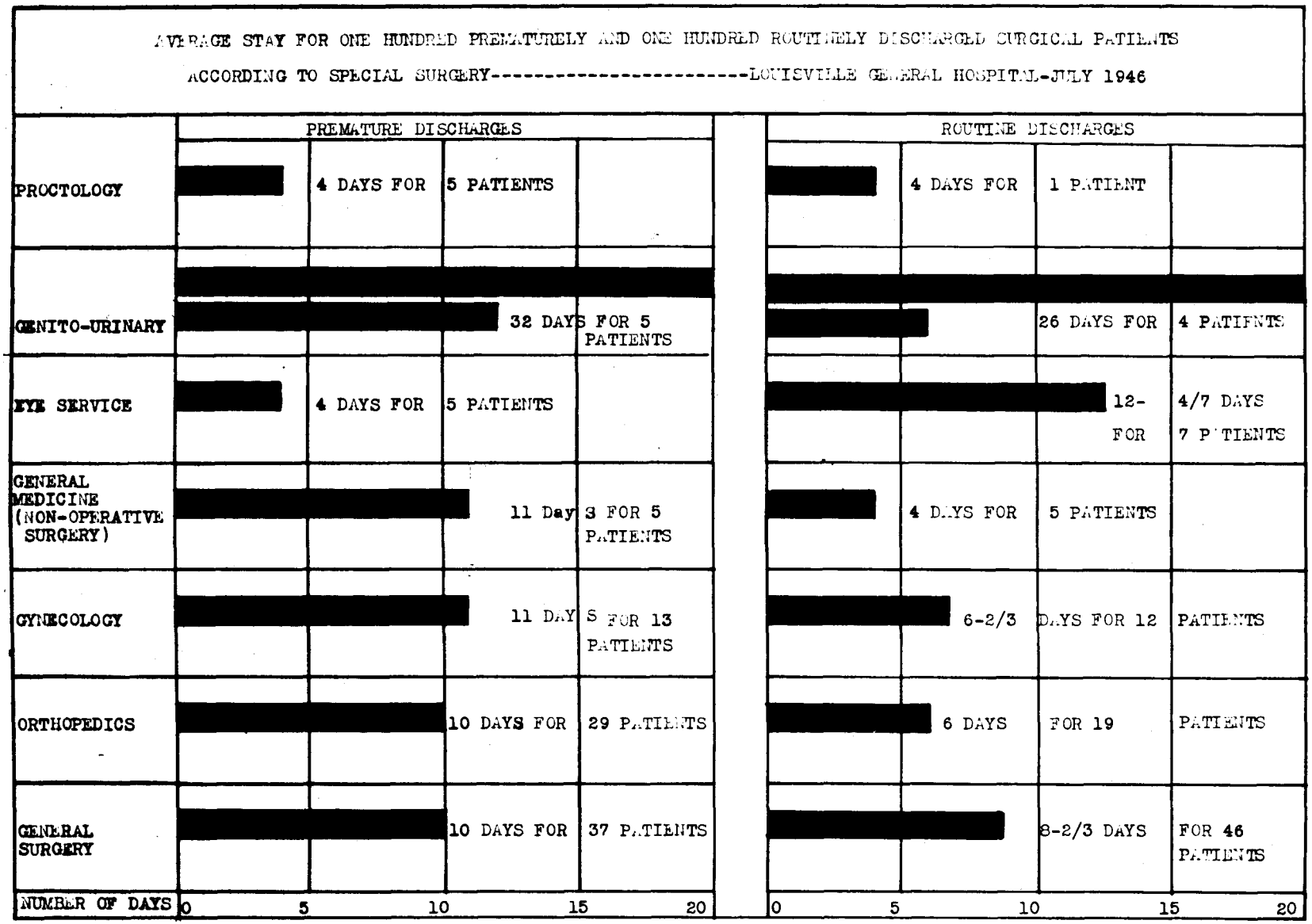

Fig. 3.--Average Stay per Surgical Service of Study and Control Groups

days after operation.

Most of the patients who had operations on female colored ward had to have extensive surgery, including cautery of the cervix as well as some type of hysterectomy. The patients on the male wards often had herniorrhaphies performed, staying an average stay of five and two-fifths days after operation. The men who had prostatectomies performed stayed much longer on the average, probably due to the greater seriousness of the operation itself and the chronicity of the complaints which require such radical surgical intervention. The advanced age of these patients might also have been a reason for prolonged hospitalization after operation, even in this prematurely discharged group of patients.

By contrast the patients with grafts for ulcers or burns were discharged quite soon after surgery, from one to two days following operation. Amputations kept the patients longer after operation than most other surgical procedures. The same ratio between length of hospitalization and length of stay following surgery was noticed for the group routinely discharged, with more serious procedures requiring longer post-operative stays. The general post-operative average was longer for patients routinely discharged than for those prematurely discharged.

INCIDENCE OF READMISSIONS FOR RECURRENCES OF ORIGINAL ILLNESS

Readmission is the term applied to the second or third hospitalization of the same patient. Ordinarily statistics are not kept in the hospital record room at General Hospital about readmissions; each time a patient is readmitted to the same or to another service of the hospital,

TABLE 8

LENGTH OF POST-OPERATIVE STAY FOR SEVENTY PATIENTS OF ONE HUNDRED PREMATURELY DISCHARGED PATIENTS FROM SURGICAL WARDS AT LOUISVILLE GENERAL HOSPITAL JULY 1946 SHOWING TOTALS BY COLORED AND WHITE MALE AND FEMALE WARDS AND HOSPITAL STAY BY INTERVALS OF THREE DAYS

Hospital Stay (Interval by Days)	Female Colored	Male Colored	Female White	Male White	Total Patients for All Wards	Total Days
One day	0	2	2	7	11	11
Two days	2	0	0	4	6	12
Three days	2	3	0	2	7	21
					24 pts.	44 days
Four days	1	2	2	4	9	36
Five days	0	1	2	1	4	20
Six days	0	1	0	1	2	12
					15 pts.	68 days
Seven days	3	0	0	0	3	21
Eight days	3	0	1	2	6	48
Nine days	4	0	0	0	4	36
					13 pts.	105 days
Ten days	0	1	0	1	2	20
Eleven days	2	0	0	2	4	44
Twelve days	1	0	2	1	4	48
					10 pts.	112 days
Thirteen days	0	0	0	0	0	0
Fourteen days	0	1	0	2	3	42
Fifteen days	0	0	0	0	0	0
					3 pts.	42 days
Sixteen days	0	0	0	0	0	0
Seventeen days	0	0	0	0	0	0
Eighteen days	0	0	1	0	1	18
					1 pt.	18 days
Nineteen thru Twenty-one days					0 pts.	0 days
Twenty-two days	0	0	1	0	1	22
Twenty-three days	0	0	0	0	0	0
Twenty-four days	0	0	0	2	2	48
					3 pts.	70 days
Twenty-five days	0	0	0	0	0	0
Twenty-six days	0	1	0	0	1	26
					1 pt.	26 days
					70 pts.	485 days

he is simply counted as another "admission". Therefore, there were no statistics on file with which to compare the readmission rate found either in the study group of those patients prematurely discharged after curtailment went into effect in July 1946, or in the control group of those patients routinely discharged during the same period.

However, a comparison of the study and control groups themselves was made for this important factor of readmissions. Readmissions indicate a number of things about a patient: his degree of illness, the type of care needed to continue or to complete his treatment, a recurrence of his symptoms necessitating further treatment, sometimes a prolongation of the illness beyond ordinary expectations of the medical and nursing staff, and sometimes they are indices to the patients' tolerance for illness. From the foregoing it should be apparent that for any one patient a readmission may not show all these factors in his medical care; for some patients readmission will show plainly that tolerance for the illness has broken down for physical and/or for emotional causes, that the patient has succumbed again to his illness to such an extent that he needs organized medical and nursing care. In other cases the most important meaning of a certain readmission may be the reflection that home care is not sufficient for this person's needs at this time, or perhaps that he is actually in worse condition than at the time of discharge and needs hospital care, perhaps even more acutely than on the first admission; this is primarily true of those patients in terminal stages of their illnesses who must return again and again to the hospital, in spite of good care at home.

In making this study of premature and routine discharges from Louisville General Hospital, certain hypotheses were advanced, among them that readmissions, as a sign of difficulty encountered in the course of medical care, might be expected to re-occur more frequently and more quickly in the patients prematurely discharged than in the patients routinely discharged under curtailment.

For the purpose of the study only those readmissions were considered from the charts that were truly recurrences of the original illness or expected complications; another illness, apparently unrelated to the original diagnoses or to complications, was not considered in the tabulating of readmissions for either study or control group. Certain facts about each readmission were considered; the length of stay of the original diagnosed illness, the interval between original discharge and readmission, the length of readmission, and whether there were more than one readmission in the period under study, which was the six months following discharge for most of the patients (from July or August 1946 through January or February 1947).

In the premature group of patients eighteen readmissions were noted for twelve patients. These readmissions totalled ninety-eight hospital days, or an average of eight and one-sixth days per readmitted patient. The total hospital stay, counting readmissions of these twelve patients, was 268 days, or an average of twenty-two total hospital days per readmitted patient. The average length of readmission was short; four of the twelve patients stayed less than three days on their return to the wards. The length of original hospitalization was of course short for

TABLE 9

DISTRIBUTION OF HOSPITAL DAYS STAY FOR TWELVE PREMATURELY DISCHARGED PATIENTS AND FOR ELEVEN ROUTINELY DISCHARGED PATIENTS READMITTED TO LOUISVILLE GENERAL FROM JULY 1946 THROUGH JANUARY 1947

Length of Readmission	Prematurely Discharged	Routinely Discharged
One day under three days	4 patients	6 patients
Three days under five days	0 patients	1 patient
Five days under seven days	3 patients	0 patients
Seven days under nine days	1 patient	1 patient
Nine days under eleven days	1 patient	0 patients
Eleven days under thirteen days	1 patient	0 patients
Thirteen days under twenty-two days	1 patient	1 patient
Over twenty-two days	1 patient	3 patients
Total days readmitted stay	12 patients 98 days total	11 patients 157 days total*

*The total days stay for readmitted routinely discharged patients is higher than that for prematurely discharged patients because of the fact that one patient had to be readmitted 12 days after his first admission of two days for a 60-day stay, as a boarder, because of lack of community facilities. Two other patients had hospital readmissions requiring 30 days each. No one in the prematurely discharged group of patients who had to be readmitted had to remain for the readmission for more than 26 days.

these readmitted patients, as can be seen from the accompanying figure on readmissions for prematurely discharged patients. Conversely their average length interval between original discharge and readmission, or between first readmission discharge and later second or third readmission, was quite long. The average original admission stay for these twelve

readmitted patients, prematurely discharged patients, was fourteen and one-sixth days, while their average interval between admissions and readmissions was twenty-nine and one-half days.

For the routinely discharged patients in the control group the problem of readmissions occurred also twelve times in eleven cases. This is six times less frequently than in the twelve readmitted patients of the prematurely discharged group, and one less patient was affected in the control group than in the study group. This factor should be noted that the number of readmissions was one-third greater in the prematurely discharged patients than it was in the routinely discharged patients. They spent 157 days in readmitted stays.

For the most part routinely discharged patients were readmitted for shorter stays than was true for prematurely discharged patients. The range of readmissions was from two days, the length of time that four of the eleven patients stayed in this group, to eight days, sixteen days, up to sixty days. The average length of readmitted stay was thirteen and one-twelth days, and the average stay per readmitted patient in the group was fourteen and three-elevenths days. The total hospital stay for these eleven readmitted patients was 264 days, or an average of twenty-four days per readmitted patient who had been routinely discharged at original admission. The median length of readmitted stay for this group of patients was two and one-half days, while the median length of readmission for the prematurely discharged group of readmitted patients was six days.

The average original stay for routinely discharged patients who had to be readmitted was nine and eight-elevenths days, while the average

interval between readmissions and original admissions' discharges was twenty and eight-elevenths days. The figures for this group of readmitted patients are shown in the accompanying figure, showing length of hospitalization before routine discharge, interval before readmission, length of readmission, and subsequent intervals and further readmissions.

Reasons for readmissions were exacerbations of original illness, as in the case of sarcoma and carcinoma, eczema, gangrene due to diabetes or injury, etc.; complications of the original illness which was reactivated to such an extent that readmission was necessary, as in cases of gangrene developing at the site of an amputation, or ulcers developing at the donor sites of grafting in burn cases. Sometimes readmissions were clearly the result of mismanagement at home, or of lack of convalescent care in the community. In other cases recurrent illness seemed more related to poor medical care during original admission, or following premature or routine discharge, than to the nature of the illness; this seemed true of the several patients who had to be readmitted for the excision of foreign bodies from their original fractures or wounds, and for several patients who were not completely diagnosed at the original admission. This last factor of improper treatment sometimes seemed closely related to the patients' uncooperativeness with the medical or nursing staff; several of them had left against advice.

THE CLINIC CARE OF STUDY AND CONTROL GROUPS AT LOUISVILLE GENERAL HOSPITAL, DISCHARGED DURING JULY AND AUGUST 1946

Clinic care is an important phase of the total care of any patient

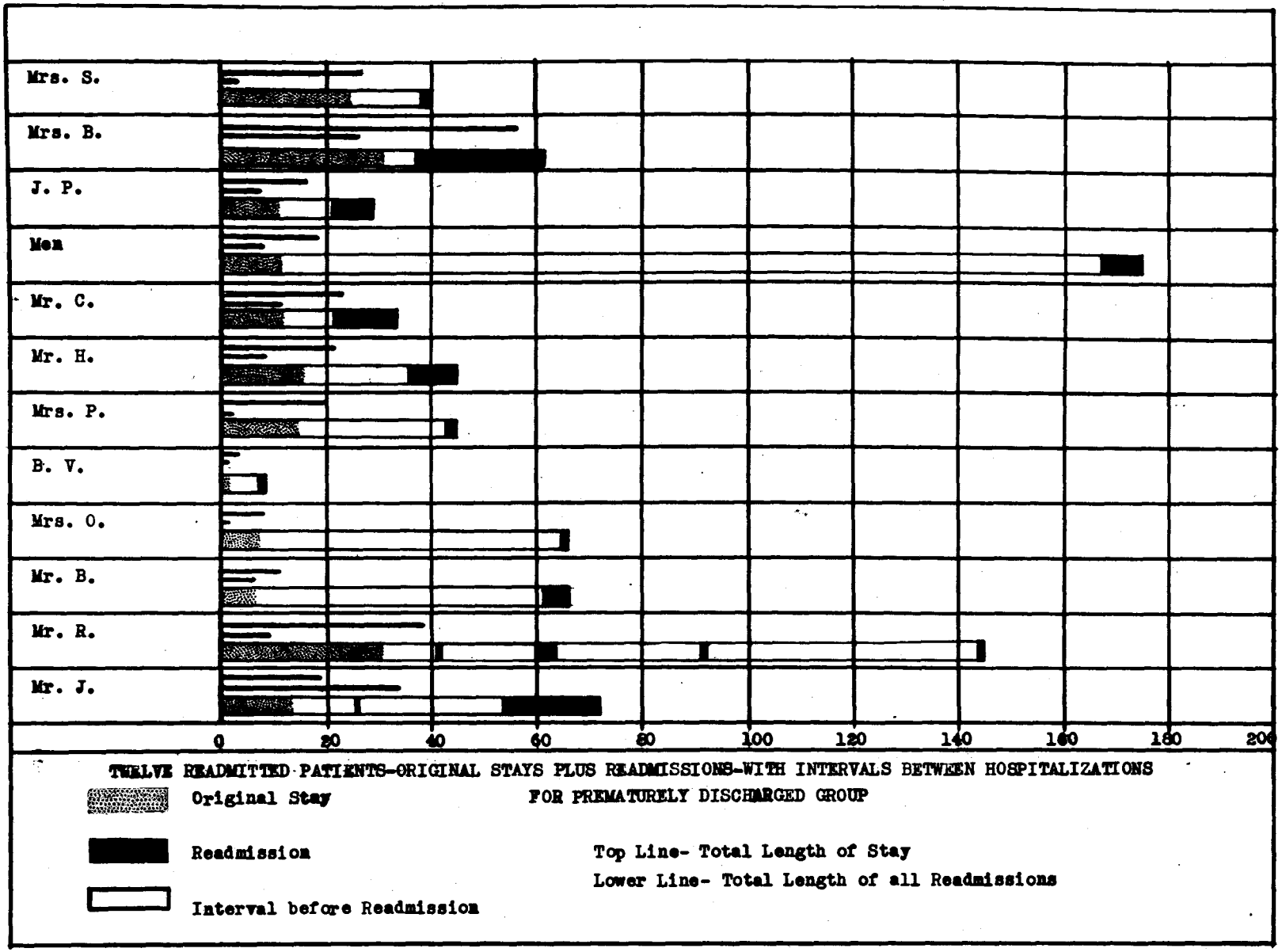

Fig. 4.--Readmissions for Twelve Prematurely Discharged Patients

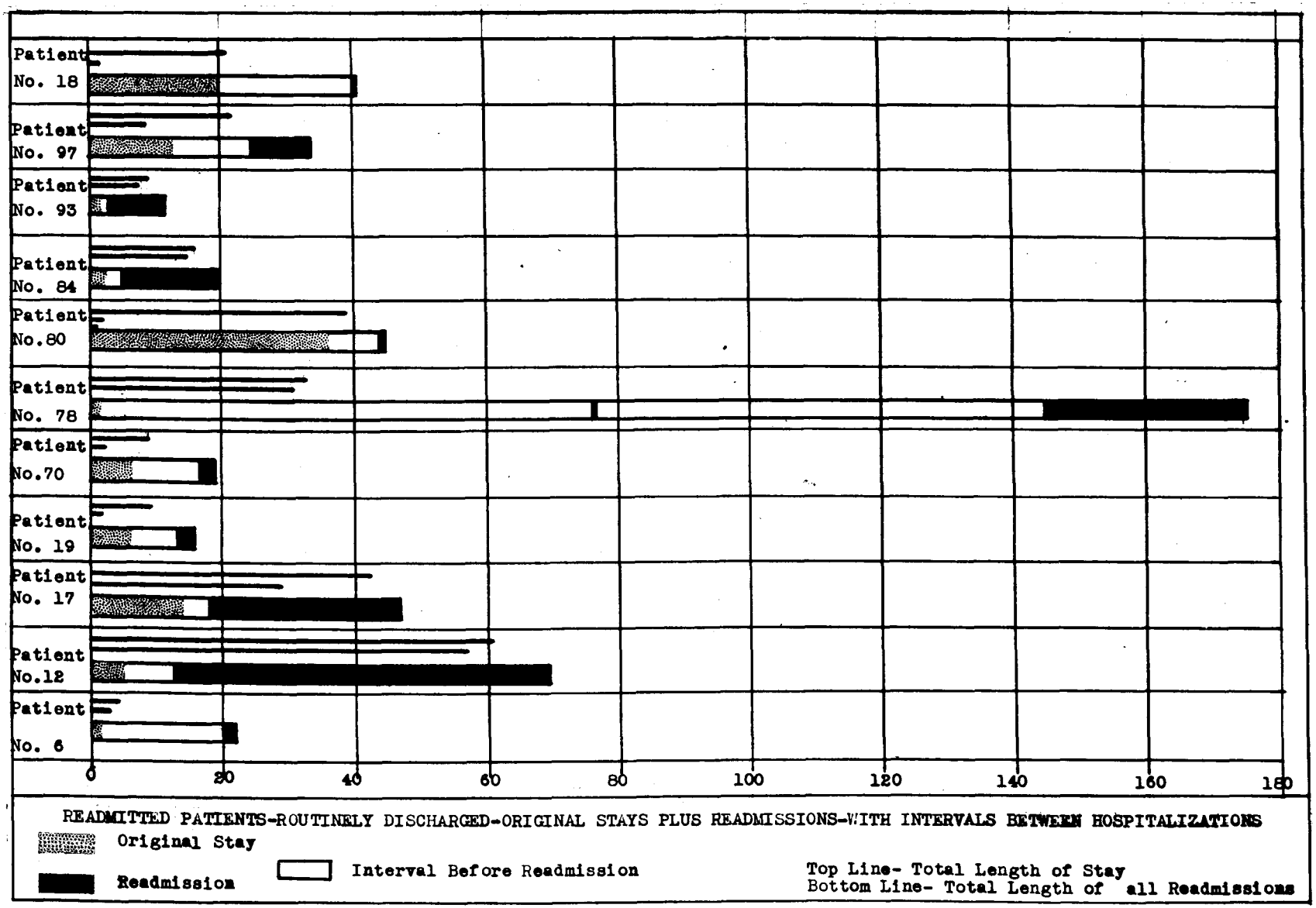

Fig. 5.--Readmissions for Eleven Routinely Discharged Patients

in a public hospital, or of any public medical care program, for the expense of ward care is too great without the efficient use of the hospital's clinics. Not all patients require the same amount of personal care at the time of their discharge from the ward, depending upon type of illness or injury, how long they have been in the hospital, etc. The amount and extent and complexity of clinic care may partially depend upon the same factors. In making this study of prematurely discharged patients, and comparing them with a control group of an equal number of routinely discharged patients who left the hospital during the same weeks as the study group, the hypothesis was advanced that the prematurely discharged group would be found to need prolonged clinic care, in comparison with the control group.

Prolongation and frequency of clinic care are not always found in the same case, as infrequent clinic attendance may be prolonged over an extremely long and debilitating illness; while often the patient whose trouble requires him to come often, as many as three or four times a week to surgery clinic to have a wound dressed, for instance, may not have to return to clinic more than two or three weeks before he is cured. Therefore, prolongation and frequency of clinic attendance must be thought of principally as indicators of whether the illness is serious and whether the patient is following instructions regarding care after he leaves the hospital. Frequency is perhaps a less accurate measure of the need of care than is prolongation of clinic attendance.

The factor that concerned the investigator most, in regard to clinic care of both groups of patients, however discharged, was that so

many patients did not return to clinic at all, and many came only once. This definitely meant that the hospital did not know what progress these patients had made after premature or routine discharge from the ward. This indicated a lack of cooperation on the part of some of the patients who did not return: a lack of proper medical or medical-social follow-up work from the hospital itself or from public health units in the city and county which had been curtailed at the same time the ward service at General Hospital was curtailed. In general the indifference of the patients to clinic service in these study and control groups in Louisville is similar to that of patient groups in many municipal hospitals. It is one of the most difficult problems of public medical care to effect a good medical follow-up of even the most seriously ill patients.

Clinic care is often dependent upon the condition of the patient when he left the ward. If he was a bed patient upon discharge, the patient would probably postpone clinic care, or perhaps overlook it entirely.

In the group of one hundred prematurely discharged patients, the investigator contacted seventy patients and the families of four patients who died before the investigation, making a total of seventy-four patients on whom information was secured. Six patients went to other hospitals where they were given bed care. Fifty-eight of the seventy-four patients contacted were discharged from General Hospital with orders for bed rest. Most of these patients were cared for by relatives; only eleven were ambulatory or partially ambulatory upon discharge.

In this study group of prematurely discharged patients who were

visited all reported that the doctors on the wards had instructed them before they left the hospital as to proper care. Sometimes brief instruction had also been given to the person in the family who was to be responsible for the patient's home care. Private doctors were called by fourteen of the one hundred prematurely discharged patients. These fourteen patients were visited a total of sixty-eight times, or four and six-sevenths times per patient on the average. This figure is roughly comparable to the number of clinic visits made by other patients, as it represents another type of medical follow-up.

Of the seventy-four patients in this group who were contacted twenty-three patients made no clinic visits following their premature discharge, while fifty-one of the seventy-four returned to clinic one or more times. The general average for the prematurely discharged patients was five returns to clinic, or about the same number of times required for follow-up care by those who had private physicians at their homes.

Twenty-six prematurely discharged patients could not be contacted by the investigator, but their medical records revealed that they, too, returned to clinic very rarely. When the figures for contacted and non-contacted groups of the prematurely discharged patients are counted, seventy patients returned one or more times, while thirty did not return at all.

For the routinely discharged group of one hundred patients, there were sixty-six patients who returned to clinic one or more times, and thirty-four patients who failed to return. The number of times that the majority of patients returned, in both study and control groups, ranged

TABLE 10

NUMBER OF CLINIC VISITS FOR SEVENTY PREMATURELY DISCHARGED PATIENTS AND FOR SIXTY-SIX ROUTINELY DISCHARGED PATIENTS OF LOUISVILLE GENERAL HOSPITAL SURGERY WARDS FROM JULY 1946 THROUGH JANUARY 1947

Number of Clinic Visits	Prematurely Discharged Patients	Routinely Discharged Patients
One through six visits	53 patients	53 patients
Seven through twelve visits	10 patients	6 patients
Thirteen through eighteen visits	5 patients	6 patients
Over eighteen visits	2 patients	1 patient
Total Number of Patients	70 patients	66 patients
Total Number of Visits	335 visits	330 visits

between one and six visits. Fifty-three patients in each group of patients returned under six times to clinic. As can be seen in the accompanying table on the number of clinic visits for study and control groups, this represents about two-thirds of those patients of both groups who kept any clinic appointments. When it is remembered that thirty prematurely discharged patients and thirty-four routinely discharged patients failed to return at all to clinic, in spite of orders to do so, it can be seen how little the clinic facilities are used.

Only fourteen patients, including those from both study and control groups, had to attend to clinic more than twelve times, which is an

extensive treatment procedure for surgical cases.

For the prematurely and routinely discharged patients, alike, the greater number of persons returned less than seven times to clinic. Very few persons returned more than twelve times to any one clinic. Some patients had to attend as many as three different clinics in order to obtain follow-up care. The prematurely and routinely discharged patients were quite similar in the matter of clinic attendance.

The scarcity of patients returning more than ten times to the clinics after discharged, whether premature or routine, indicates again what an acutely ill group of patients we are considering, for it is principally chronically ill persons who usually fill the clinics, for long periods of time. Many of the patients interviewed said they were feeling fairly well, or were trying to work, when the time for their first clinic appointment came; they gave these reasons for failure to complete the outlined program of clinic care. Others were not able to get transportation to clinic at the proper time, and gave up attendance because of its difficulties. Fifty-nine of the seventy-four prematurely discharged patients interviewed came back to clinic too few times to complete treatment outlined by their doctors when they left the wards or later when they returned to clinics. At the time of the study medical care was still not complete for some of these patients, and many who have not completed care believe they are now well. About eighty percent of the prematurely discharged patients failed to follow directions regarding clinic care. Of course, there are some patients whose illness is such that though they have followed directions for care in clinic, their

medical care is still not complete; these patients should not be confused with those who failed to follow directions.

Reasons for prolonged clinic care in either group are interesting. Essentially the same factors seem to operate, no matter whether the patient was counted as a premature discharge or a routine discharge when he left the hospital. The nature of the diagnosis is the prime determinant of the type of clinic care needed. Burned patients, persons with infections from stab or gunshot wounds which required frequent dressings in surgery clinic, had to return eighteen and twenty times to clinic. Another diagnosis which caused trouble and frequent visits, after premature or routine discharge, were prostatectomy and cystoscopy; here we are dealing with chronic disturbances and with delicately balanced organs of the body; it should be remembered that it was these same diagnoses which kept both groups of patients in the hospital for the longest original stays, and which in several cases caused their return to the hospital for readmission after premature or routine discharge. In both cases of prostatectomy age and general health were additional factors of importance in delaying recovery and in causing prolonged clinic attendance, often with poor results for the patient.

In analyzing those prematurely discharged patients' records who returned to clinic twelve times or more, in most instances it seemed that a good choice had been made for premature discharge and prolonged clinic care by which a saving of ward facilities could be effected. Patients needing prolonged and frequent physiotherapy treatments, or treatment in varicose vein clinic, could come to the hospital for a segment of each

TABLE 11

DIAGNOSES CAUSING THE MOST FREQUENT CLINIC VISITS FOR ONE HUNDRED PREMATURELY DISCHARGED PATIENTS FROM LOUISVILLE GENERAL HOSPITAL JULY 1946 AND ONE HUNDRED ROUTINELY DISCHARGED PATIENTS WITH REFERENCE TO THE SPECIAL SURGICAL SERVICE

Service and Diagnosis	Number of Patients Prematurely Discharged	Routinely Discharged	Average No. of Clinic Visits
Senile cataracts (eye)		1	20 visits
Burns, grafting (g.s.)	1		19 visits
		1	18 visits
Arthritis and lumbar-sacral strain (g. m.)		1	15 visits
Lacerated wound of forearm (g.s.)		1	15 visits
Gunshot wound of wrist (g.s.)		1	13 visits
Arthritis of wrist (tuberculosis) with amputation of arm (g.s.)		1	13 visits
Endocrine imbalance (g.m.)		1	12 visits
Cystoscopy and prostatectomy (g.u.)		1	10 visits
Prostatectomy (g.u.)	6		8 visits
Amputation of fingers (g.s.)		1	7 visits
Abscess of fingers for I. and D.		1	7 visits
Duodenal ulcer and vagotomy (g.s.)		1	8 visits
Acute appendectomy (g.s.)	8		4 visits
Lacerations (g.s.)	7		4 visits
Fractures (orthopedics)	24		3 visits
Hysterectomy (gyn.)	13		3 visits
Saucerization of osteotomy		1	2 visits
Amputations (g.s.)	2		2 visits
Herniorrhaphy (g.s.)	5		1 visit
Ischio-rectal abscess (procto.)	3		none
Concussion of brain, craniectomy contusions of head (neuro.)		3	none
Incomplete abortion (gyn.)		2	none
Diabetes, gangrene (g.m.)		1	none
Sprained vertebrae (ortho.)		1	none
Penetrating stab wound of thigh (g.s.)		1	none
Bowel obstruction (g.s.)		1	none
Fetal adenoma of thyroid (g.m.)		1	none
Appendicitis (g.m.)		1	none
Carcinoma of cervix (gyn.)		1	none
Fractured Mandible (ortho.)		1	none
Varicose veins (g.s.)		1	none

While this is not a complete listing of all diagnoses for both groups it is suggestive of those diagnoses where patients most frequently felt the need of continued clinic care after discharge; those diagnoses for which patients did not seek clinic care.

day, when necessary, and carry on their convalescence at home, better than on the hospital wards. Apparently these patients were cared for at home, and did very well with occasional visits to the clinics.

Certain operations and conditions required only a small average number of visits to clinic after discharge, whether routine or premature. Hysterectomies and herniorrhaphies were among the less taxing operations, in this respect, even though the original hospitalization may have been prolonged in relation to many premature and routine discharges' hospitalizations. Clinic visits were apparently helpful in most instances, and there were no complaints from the group of patients interviewed, about the clinic routine or nursing, as most patients realized under what difficulties the hospital was maintaining service. The expense of clinic visits was heavy, however, especially for those patients who had to come by cab or ambulance, and it was also very difficult for ill persons to come on the crowded busses and street-cars.

The accompanying table on the frequency of clinic visits by diagnoses and surgical specialty shows the number of clinic visits in control and study groups; although it is not a complete listing of all diagnoses, it is indicative of the illnesses which caused the most frequent, as well as the least frequent clinic attendance. It only indirectly measures the extent or prolongation of clinic care.

CHAPTER III

A SUMMARY OF FINDINGS

As it has been shown in the chapter on the historical aspects of curtailment at General Hospital, Louisville and Jefferson County faced a problem of health administration which is apt to recur on tax-supported medical programs, or tax-supported programs of other types, such as welfare departments, institutions for the care of children, the aged, or other special groups of the population dependent upon the general public for their support. In many respects the Louisville experience of curtailment, demanded by the reality of increasing costs of operation of the Health Department which was not met with increased tax-support, has been a common one in other communities in America. It must be realized that the philosophy of general public social services and health services is of rather recent development in the United States, where the philosophy of political laissez-faire prevailed almost untouched until the depression of the 1930's and the reorganization for war production and mobilization of man-power in the second World War. Therefore, it is not surprising that local communities with such a laissez-faire outlook still prevailing should still find it difficult to get tax-support for such public welfare activities as public hospitals and clinics, nurses and doctors, as well as for other needed social services.

Progress in the social sciences is very slow and growth is often a matter of political trends, such as the New Deal swing toward state intervention in business, protection of labor and active Federal participation in the social services. Such trends also have a way of reversing themselves through the inertia and unconcern of the taxpayer. Therefore, Louisville's experience is only typical and is not necessarily a permanent aspect of health provision for the citizens of Louisville and Jefferson County. This does not imply, however, that a continued curtailment of funds to be spent by the Health Department could be tolerated for very long by the community without definite damage to the physical well-being of a large group of citizens unable to procure private medical care because of insufficient income. Medical care is increasingly expensive to purchase individually, because of the highly specialized nature of the practice of medicine and surgery of all types, and the prohibitive price to almost the total community of very special skills such as some operations, psychiatric consultation or treatment, etc. Therefore, it should be a serious concern to the citizens of any community whenever their Health Department is unable to function properly due to any cause. It is particularly serious when this cause is lack of government financing which has already been planned by previous legislators, but which is not implemented by tax appropriations in the proper amounts. The whole matter is concerned with the tax-raising and budgeting functions of local, state and even of Federal governments, but the direct consequences will be felt by the poorer groups of the population who must depend on the tax-supported services for medical care.

In this study the direct results of curtailment of hospital service at Louisville General Hospital has been examined from the experience of two similar groups of patients of the Hospital. We may assume that each group was roughly similar in financial background, the section of community from which they came, and the amount of other social services they might have required. This assumption can be made from the previous experience of the hospital administration and from the generally shared fact of their eligibility to General Hospital. The difference between the two groups was an arbitrary one, the fact of premature discharge after a hospitalization, or of routine discharge. These terms were defined by the physicians in charge, and in many cases it was apparent that the terms were not very different in their meaning. For instance, the length of hospital stay was very closely similar in the two groups when patients in both groups with the same diagnosis were compared. In many cases it is true, of course, that one patient may stay for a day with one diagnosis and because of the general condition before injury or some other factor may be quite ready for discharge and therefore considered a routine discharge, while another patient with an identical injury, from the surgical point of view, might have a disposition to illness, a serious emotional or psychic reaction to an injury or illness resulting in psychosomatic complaints that might make hospitalization very desirable; and if this latter patient is discharged after one day's care in the hospital, the doctors rightly feel they have discharged a patient prematurely, before he was ready to leave without risk to his future health.

Therefore, the concepts of routine and premature discharge are

largely relative ones, which are subject to many variable factors in each patient's condition or disposition. They are useful for comparison, however, as they give us a method by which patients who are treated under a general curtailment of service may be studied.

Since curtailment meant that fewer patients could be served at any given time on the wards, it called for a policy of quick turnover of beds on each ward which was left, and this in turn demanded some such policy as the "premature discharge" if a great number of patients urgently needing surgery were to be served by the hospital. This curtailment meant that service was restricted to acutely ill or emergency cases of injury on the surgical service, because the ward space was not large enough to accomodate elective surgery patients any longer. This was also true of general medical patients and of pediatric patients under curtailment. It was especially true of almost all obstetric patients, except those patients with the most serious complications of childbirth. The psychopathic wards were not affected because of particular problems of care in the community which they represented, and the fact that there were no private facilities within reach of the families of these patients.

A second result of curtailment was to deny care to chronically ill patients of Jefferson County and of Louisville, except the limited custodial facilities of the Home for the Aged and Infirm at Shively. This is a natural result of the curtailment of facilities for acutely ill patients. In the end chronically ill patients will have to be provided for by the Health or Welfare Departments and the curtailment plan only confirmed the trend of neglect of these patients, postponing

the day when care for them can be planned systematically.

From the facts of this study it would seem that curtailment has had the expected results on the medical care of patients at General Hospital. Length of hospital care has been shortened for both groups, which represent a sample of the total population of surgical patients, to such an extent that the difference between premature stay and routine stay is practically negligible. Clinic care has been maintained for both groups, and used in practically the same ratio by both groups, whether routinely or prematurely discharged. Readmissions have occurred in both groups with equal frequency, and the possible factor of causation in the premature discharge has not been proved, though in individual cases it might be demonstrated in later readmissions.

When the results from obvious records of the medical charts and from the statements of the prematurely discharged patients are counted it is found that the prematurely discharged patients who were interviewed did not think premature discharge had much influenced the course of their illnesses and most of them claimed recovery or improvement of health, and were satisfied with care received. The proportion of patients who were sick, well, or partially disabled after premature discharge, can be compared with the number of this same group who stated they were satisfied or dissatisfied with hospital or clinic care.

In general it can be determined from this study that premature discharge or some such measure of hospital administration was necessary for curtailment of hospital service, and that the results have fallen with about equal force on those patients routinely and prematurely discharged

from surgery. Therefore, curtailment has affected the general hospital population rather than only a specific group, those prematurely discharged. Standards of care have been maintained at the cost of shorter and less complete service on the wards for all patients, however they may have been designated at the time of their discharge.

Medical service has actually improved, as measured by the number of internes on surgery service. As in many of the civilian hospitals, the war-time shortage of internes has decreased, and General Hospital had during curtailment its pre-war number of resident staff, with seventy-seven internes and twenty-eight doctors on rotating interneships,[1] and twenty-one surgical residents and three residents on anesthesia care for the surgery patients.[2] Nursing service has also been increased since 1945-1946 from the average of six-tenths of an hour per day per patient to the average of one and one-half hours per day per patient in 1946-1947.[3] This nursing service is given on the surgery service by twenty-four graduate and student nurses.[4] The ratio of student to graduate nurse in the hospital is very high. Most wards have a nursing supervisor who is a graduate, and sometimes there is an assistant, with the bulk of bedside nursing done by students under supervision of the graduate.

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[1]Statements from Mr. W. C. Walton, Hospital Administrator, General Hospital, March 1947.

[2]Ibid.

[3]Statements from the Office of Nursing Service and Nursing Education, General Hospital, March 1947.

[4]Statement from Mr. Walton's office, loc. cit.

However, the hospital has not been able to keep all the positions authorized for graduate nurses filled with graduates during this curtailment year.[5]

Since the curtailment measure in July 1946, there have been various readjustments in the fiscal policy. These have been notable in that there has been continued effort on the part of the Health Director and his Board to gain an increase of finances for the Department's various services, from whatever revenue sources seemed available. The Municipal Bridge funds were one source of help. Another source of support for the hospital was the savings from the hospital's operating budget, which resulted largely in the ability to keep all graduate nurse's positions filled. This made it possible for the Hospital to reopen forty of the beds which had been closed by the curtailment order on March 1st, 1947. These beds can only be operated until the end of the fiscal year, June 30, 1947.[6] It is hoped by the administration that sufficient funds will be appropriated for the new fiscal year to allow these beds to continue in use, but think it probable that the hospital will again have to discontinue use of these beds at the beginning of the new fiscal year when the funds saved this year are used up.

From the material in the study it would seem advisable for the medical staff to make greater use of the social service department in making plans for prematurely and routinely discharged patients, but

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[5]Letter from Mr. W. C. Walton to investigator, May 15, 1947.

[6]Ibid.

particularly for the prematurely discharged group. When these patients were interviewed the meaning of their illnesses were discussed, and many could have been helped to more complete and effective medical care following discharge if a careful medical social plan had been made. With continued efforts to improve the nursing service to the entire patient group, General Hospital ought to be able to maintain reasonably satisfactory hospital service to the individual who can be admitted to the ward, in spite of curtailment. It has been shown by the replies of those prematurely discharged, that nursing service was the only serious complaint voiced against the hospital, and the patients themselves discounted the effect of premature discharge on their recovery.

Curtailment was designed as temporary measure to balance the budget of the health department of the city and county. It was not considered a permanent aspect of public medical care in the community, and was looked upon by the administrators as a necessary adjustment, but a dangerous one if followed for too long a time. The practice of premature discharging, for instance, had never before been employed at General Hospital before curtailment made some such measure necessary. While curtailment is conceived as a temporary measure, and its effects on a small sample group of the hospital's population in 1946-1947, has been shown not to have been serious, it cannot be argued from these facts that continued curtailment of needed health services should be tolerated by the community. No basic changes in the organization of the Health Department have been made because of the fact that curtailment is thought of as only a temporary measure. However, the decision is up to the tax-

appropriating bodies of the city and county governments. Curtailment for a short time is unfortunate, but for an extended time might have serious effects on the health of the community, the confidence of the public in public medical services.

Hospital service is an important aspect of health organization of any community. The number of patients served under curtailment is roughly half the estimated number which should be provided free or partial-pay care in a community of Louisville's size. Therefore, the Louisville Department of Health should have the support of the community in providing increased and expanded health services, rather than in curtailing badly needed services in all its branches.

Hospital service is a community problem, just as public education and sanitation, and tax appropriations must be made with this fact in mind in order to effect future savings to the community on its total health bill.

APPENDIXES

I. MONTHLY STATISTICS FOR LOUISVILLE GENERAL HOSPITAL JULY 1946-APRIL 1947

TABLE 1

NUMBER OF PATIENTS PREMATURELY AND ROUTINELY DISCHARGED

Interval	Prematurely Discharged	Routinely Discharged	Total Number Discharged*
July 20-Sept. 6	481	562	1,043
Sept. 7-Oct. 6	347	350	697
Oct. 7-Nov. 6	318	486	804
Nov. 7-Dec. 6	354	421	775
Dec. 7-Jan. 6 (1947)	349	417	766
Jan. 7-Feb. 6	280	481	761
Feb. 7-Mar. 6	282	381	663
Mar. 7-Apr. 6	302	497	799
Apr. 7-May 6	273	507	780
Totals	2,986 patients	4,102 patients	7,088 patients

*The figures for total discharges do not include deaths.

The statistics were taken from figures compiled in the Record Room at Louisville General Hospital.

I. MONTHLY STATISTICS FOR LOUISVILLE GENERAL HOSPITAL JULY 1946-APRIL 1947

TABLE 2

AVERAGE LENGTH OF HOSPITALIZATION FOR ROUTINELY AND FOR PREMATURELY DISCHARGED PATIENTS

Interval	Patients Prematurely Discharged	Average Hospital Stay (Days)	Patients Routinely Discharged	Average Hospital Stay (Days)
July 20-Sept. 6	481	7.3	562	10.9
Sept. 7-Oct. 6	347	5.5	350	11.8
Oct. 7-Nov. 6	318	5.1	486	10.3
Nov. 7-Dec. 6	354	3.9	421	11.5
Dec. 7-Jan. 6 (1947)	349	4.2	417	11.4
Jan. 7-Feb. 6	280	5.0	481	11.0
Feb. 7-Mar. 6	282	5.2	381	12.4
Mar. 7-Apr. 6	302	6.0	497	11.8
Apr. 7-May 6	373	4.9	507	11.2

I. MONTHLY STATISTICS FOR LOUISVILLE GENERAL HOSPITAL JULY 1946-APRIL 1947

TABLE 3

COMPARISON OF 1946-1947 CURTAILMENT WITH 1940, 1945

	1940	1945	1946-1947*
Routine Discharges	11,499	12,788	4,102 patients
Premature Discharges	0	0	2,986 patients
Total Discharges	11,499	12,788	7,088 patients
Average Monthly Discharge	957	1,065	787 patients
Daily Average Number on Wards	421.9	392.9	
Average Number of Days Stay	12.4	10.5	5.2 days for premature 11.4 days for routine 8.3 days for both

*The figures for 1946-1947 are for the nine month period under study--July 20, 1946, through May 6, 1947.

I. COPY OF LETTER FROM HOSPITAL ADMINISTRATION

LOUISVILLE AND JEFFERSON COUNTY BOARD OF HEALTH
Louisville 2, Kentucky

May 15, 1947

Miss Ruth C. Davidson
156 Seventh Street, N. E.
Atlanta, Georgia

Dear Miss Davidson:

Please pardon my delay in replying to your letters of April 14, 1947, one of which was addressed to me, and the other to Dr. John J. Phair. . . . . I am attempting to answer the questions you asked of Dr. Phair as follows:

1. The bed capacity at the General Hospital was increased about March1, 1947 by forty (40) beds. Funds necessary to operate these additional beds for the balance of this fiscal year (June 30, 1947, inclusive) were realized from savings on our operating budget, resulting largely from our inability to keep all graduate nurse positions authorized filled. It is probable that we shall have to discontinue these additional beds at the beginning of our new fiscal year, unless a sizable increase is granted over last year's appropriation for operating requirements. We, of course, hope that sufficient funds will be appropriated to permit the reopening of our closed wards, and the operation of the hospital on a normal basis, during the fiscal year of 1947-1948.

2. . . . . Since the Board's original release, there has been some reallocation of funds between the facilities operated by the Board, and the Department has been provided with additional funds in the amount of $42,000.00 by the City of Louisville. . . . .

3. The practice of discharging patients prematurely has never, to my knowledge, been in effect at the General Hospital, prior to the period covered by your study, beginning about July 1, 1946. . . . .

. . . .If you find that you need some further help, kindly do not hesitate to call upon us.

Very cordially yours,

/s/ W. C. Walton

W. C. Walton
Administrator
Louisville General Hospital

WCW:ejh
Enc.

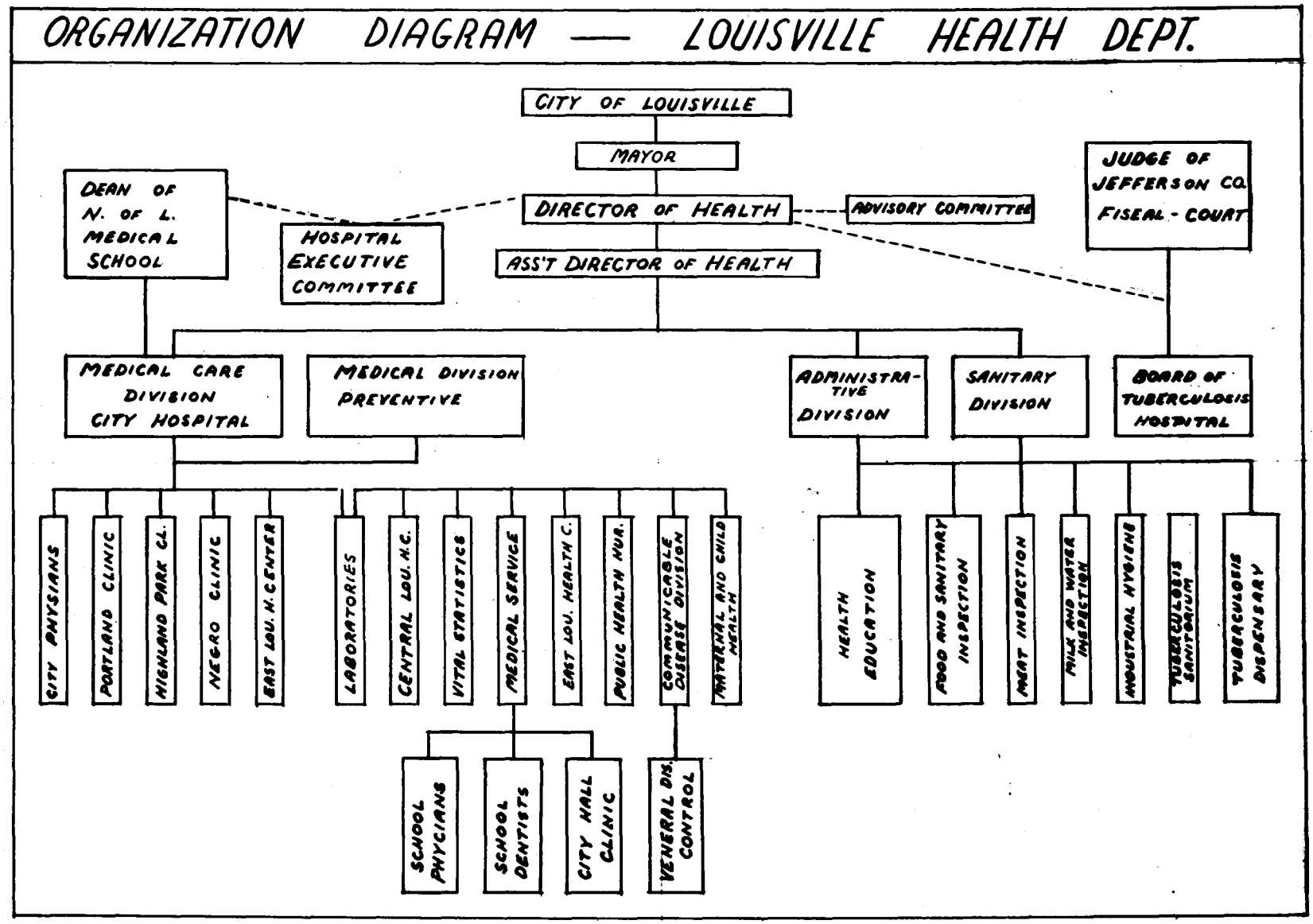


Fig. 1.--Organization of Louisville Health Department and City Hospital before merger with Jefferson County Health Department.

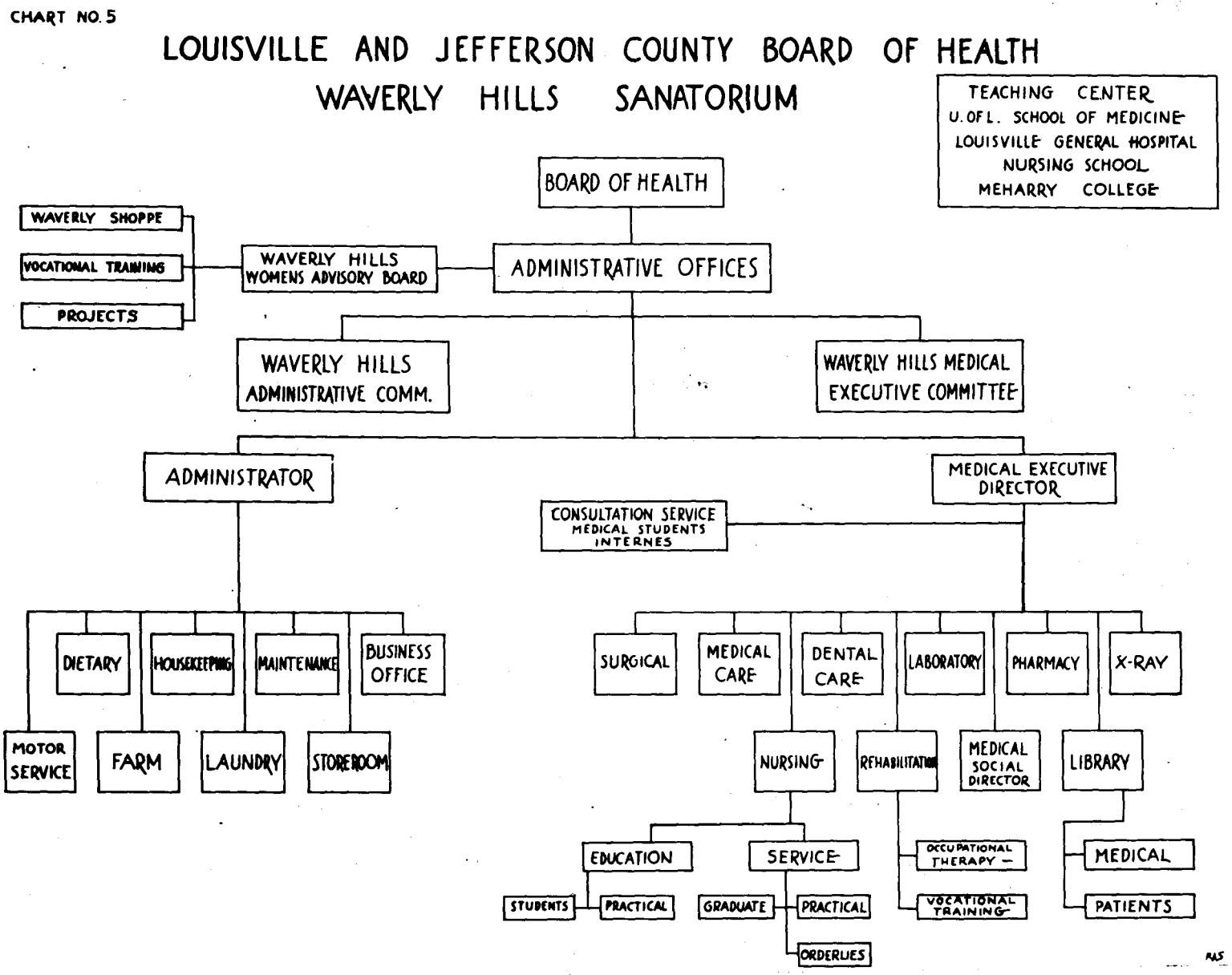


Fig. 2.--Organization of Louisville and Jefferson County Board of Health, General Hospital and Waverly Hills Sanatorium after merger of Louisville and Jefferson County Health Departments.

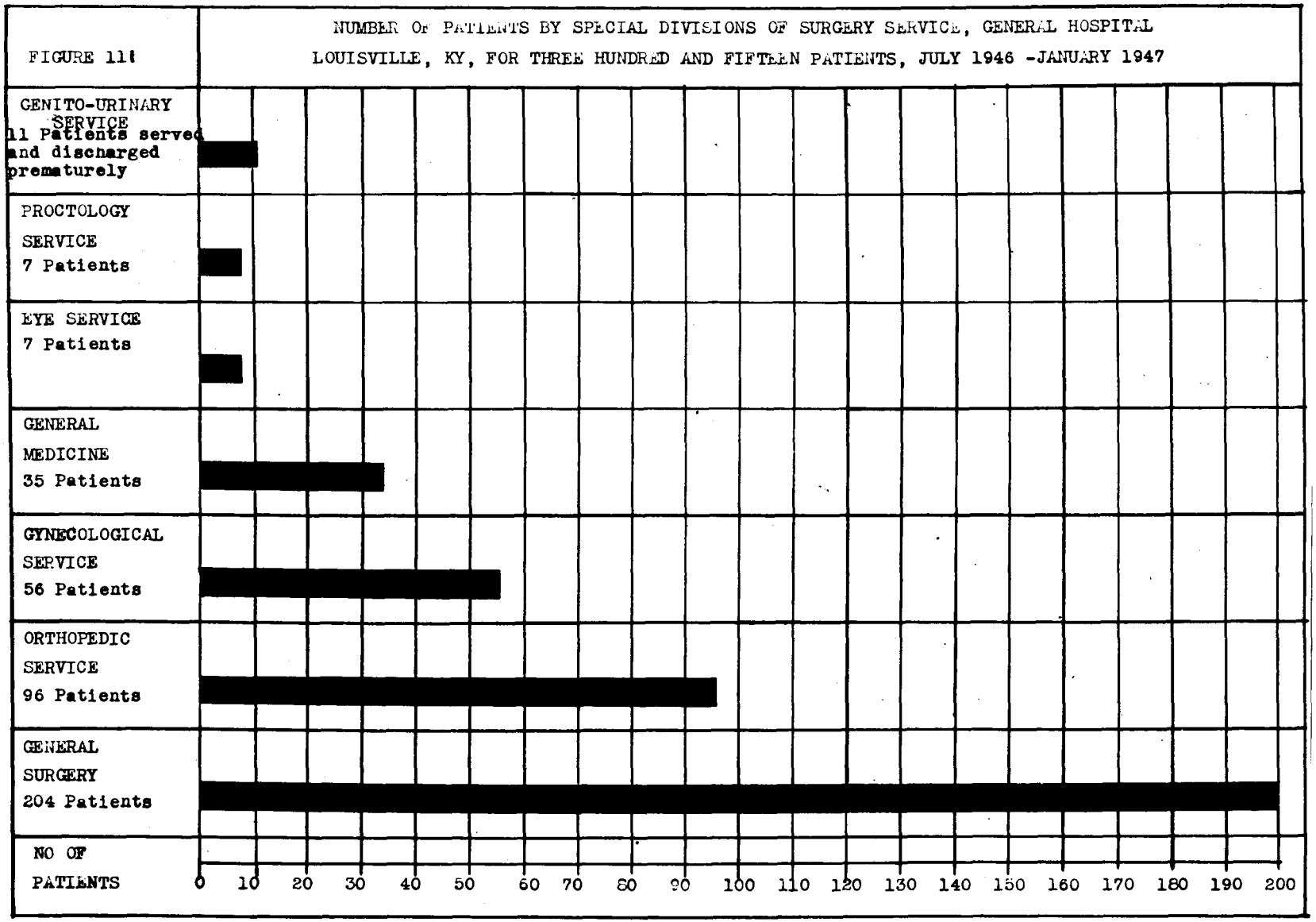


FIGURE 11
NUMBER OF PATIENTS BY SPECIAL DIVISIONS OF SURGERY SERVICE, GENERAL HOSPITAL
LOUISVILLE, KY, FOR THREE HUNDRED AND FIFTEEN PATIENTS, JULY 1946 -JANUARY 1947
GENITO-URINARY SERVICE
11 Patients served and discharged prematurely
PROCTOLOGY SERVICE
7 Patients
EYE SERVICE
7 Patients
GENERAL MEDICINE
35 Patients
GYNECOLOGICAL SERVICE
56 Patients
ORTHOPEDIC SERVICE
96 Patients
GENERAL SURGERY
204 Patients
NO OF PATIENTS
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Fig. 3.

III. LENGTH OF HOSPITAL STAY FOR SELECTED DIAGNOSTIC GROUPS OF PATIENTS AT LOUISVILLE GENERAL HOSPITAL JULY-AUGUST 1946 COMPARED WITH PATIENTS IN VOLUNTARY AND MUNICIPAL HOSPITALS IN NEW YORK CITY 1933[a]

TABLE 4

Diagnosis	New York Patients (Routinely Discharged)	Louisville Patients (Average) Prematurely Discharged	Routinely Discharged
Hernia	14 to 28 days	14 days	1 day[b]
Appendicitis (acute) with operation	8 to 30 days for 93% of pts.	8 2/3 days	6 1/4 days
without operation	1 to 14 days for 82% of pts.	no patients without operation in either study group	
Fractures, leg, hip	1 to 7 days - 33% 8 to 14 days - 16% 15 to 30 days - 16½% 31 to 60 days - 18%	15 days	7 days
Fractures of arm, wrist	1 to 7 days - 57% 8 to 14 days - 16.6% 15 to 30 days - 14.8% 31 to 60 days - 8%	6 2/3 days	3 days
Fractures of skull	1 to 7 days - 13½% 8 to 14 days - 19½% 15 to 30 days - 62% 31 to 60 days - 12½%	1 1/2 days	6 1/6 days
Osteomyelitis	1 to 7 days - 27% 8 to 14 days - 18% 15 to 30 days - 21% 31 to 60 days - 15% over 60 days - 19%	4 days[b]	4 days[b]
Hemorrhoids	1 to 7 days - 47% 8 to 14 days - 45% 15 to 30 days - 7% 31 to 60 days - 9% over 60 days - 2%	4 1/5 days[c]	4 days[b]
Genito-urinary disturbances	1 to 7 days - 27% 8 to 14 days - 25% 15 to 30 days - 25% 31 to 60 days - 15% over 60 days - 9%	31 1/2 days	26 1/4 days

[a]These averages are taken from tables in Vol. II, New York Welfare Council, Hospital Discharge Study, 1943.

[b]Averages so marked refer to a "grouping" of only one patient.

[c]This average is for patients with proctological diagnoses, including hemorrhoids, and refers to a group of five patients.

IV. PATIENTS KNOWN TO SOCIAL SERVICE AND HEALTH AGENCIES

The one hundred patients in the study group of prematurely discharged patients were cleared with Social Service Exchange for registrations of health and social agencies in the community. Figures 4, 5, 6, and 7 show the frequency with which certain agencies were consulted or with which their services were used by our patients. No similar study was made of the one hundred patients routinely discharged.

In tabulating the results of this part of the study a division was made between those patients known to social service or health agencies after 1945, 1946, and 1947 and those who were known only in earlier years. Figure 4 of this appendix contrasts patients known prior to 1945 but not since 1945 by type of agency, those patients' families known to health agencies, and those known to welfare agencies. These figures show frequency of registration of various agencies rather than the per patient use of these agencies because many of the patients were known to several agencies.

Both health and welfare agencies are divided for the purposes of graphing their registrations into sub-heads by function of the agency. Those agencies giving primarily relief and assistance or full care (as in the case of institutions like General Hospital and Home for the Aged and Infirm) are dissimilar from those agencies whose functions are primarily to render specific and limited service to the general community. These service agencies included public health nursing services, visiting nurses,

health clinics, the Social Service Department at General Hospital, and many private agencies rendering case work service such as Legal Aid Society or family service.

On the whole, service agencies helped the patients more frequently than did relief agencies or institutions giving full care. Some agencies such as family service organizations and children's agencies had combined functions of relief and service.

Of the one hundred prematurely discharged patients, twenty-seven per cent were not known to any social or health agency at any time. This would illustrate that group of medically indigent patients who are normally self-reliant and self-supporting members of the community until illness strikes. They are not usually able to purchase expensive medical care and were eligible for public medical care. It is interesting that of the one hundred patients thirty-seven per cent were known prior to 1945 but were not known to health or welfare agencies after 1945. This gives a total of sixty-four per cent of the prematurely discharged patients who managed on their own resources without help even from a service agency in the fact of their illness and premature discharge. This indicates practically a two-thirds majority of patients prematurely discharged who were self-sufficient and depended on the community only for the provision of emergency medical care through the public hospital.

Only thirty-six per cent of our patients prematurely discharged were known in 1945 and 1946 and only eight per cent of this group had any clearings since July 1946 when the period of this study of premature discharges began. Therefore, we would conclude that premature discharge

was not a factor in causing registration with social or health agencies. Of the patients studied there were no increases that could be primarily shown to be due to premature discharge.

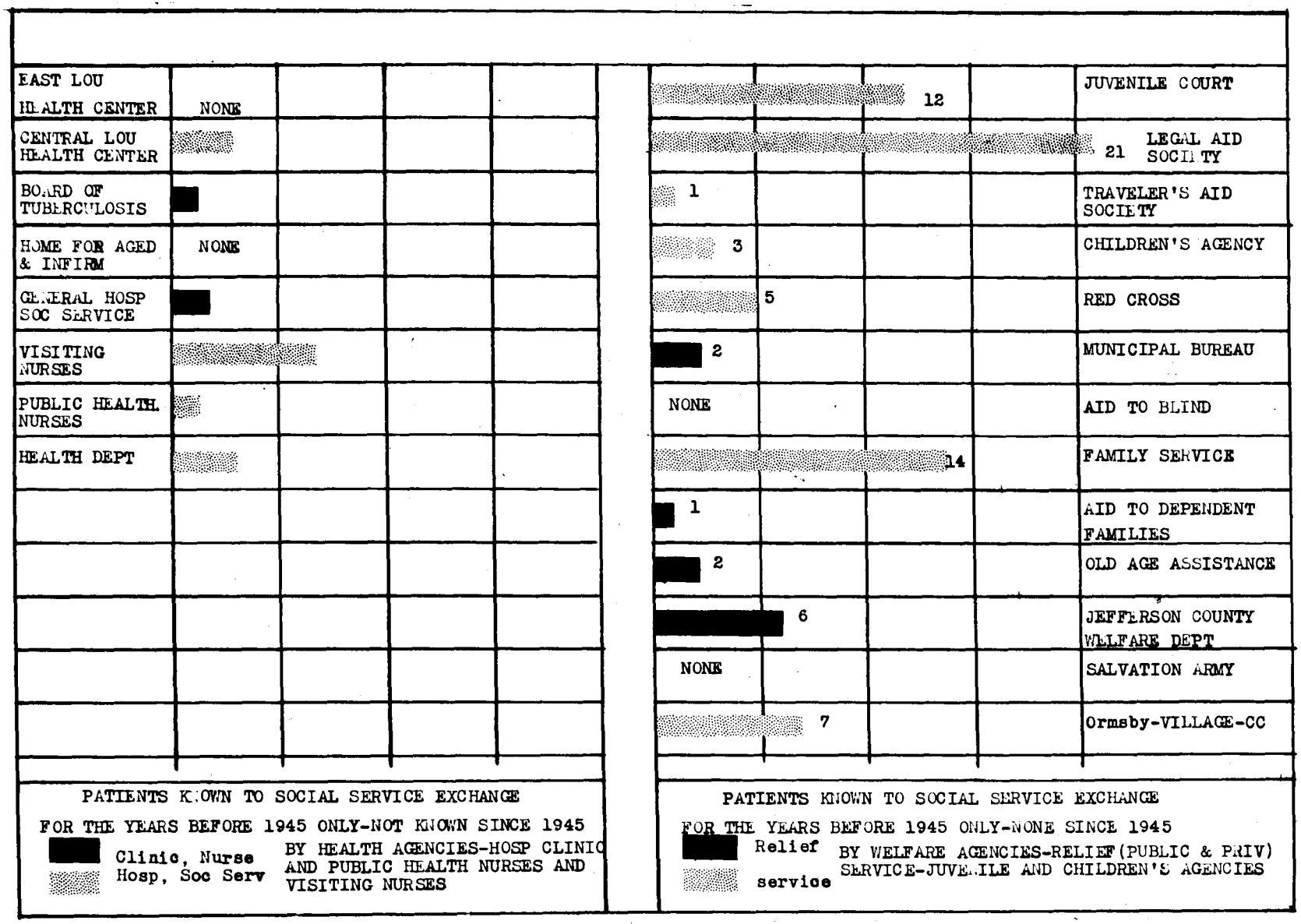

EAST LOU HEALTH CENTER
NONE
CENTRAL LOU HEALTH CENTER
BOARD OF TUBERCULOSIS
HOME FOR AGED & INFIRM
NONE
GENERAL HOSP SOC SERVICE
VISITING NURSES
PUBLIC HEALTH NURSES
HEALTH DEPT
PATIENTS KNOWN TO SOCIAL SERVICE EXCHANGE
FOR THE YEARS BEFORE 1945 ONLY-NOT KNOWN SINCE 1945
Clinic, Nurse
Hosp, Soc Serv
BY HEALTH AGENCIES-HOSP CLINIC AND PUBLIC HEALTH NURSES AND VISITING NURSES
12
JUVENILE COURT
21
LEGAL AID SOCIETY
1
TRAVELER'S AID SOCIETY
3
CHILDREN'S AGENCY
5
RED CROSS
2
MUNICIPAL BUREAU
NONE
AID TO BLIND
14
FAMILY SERVICE
1
AID TO DEPENDENT FAMILIES
2
OLD AGE ASSISTANCE
6
JEFFERSON COUNTY WELFARE DEPT
NONE
SALVATION ARMY
7
Ormsby-VILLAGE-CC
PATIENTS KNOWN TO SOCIAL SERVICE EXCHANGE
FOR THE YEARS BEFORE 1945 ONLY-NONE SINCE 1945
Relief
service
BY WELFARE AGENCIES-RELIEF(PUBLIC & PRIV) SERVICE-JUVENILE AND CHILDREN'S AGENCIES

Fig. 4.

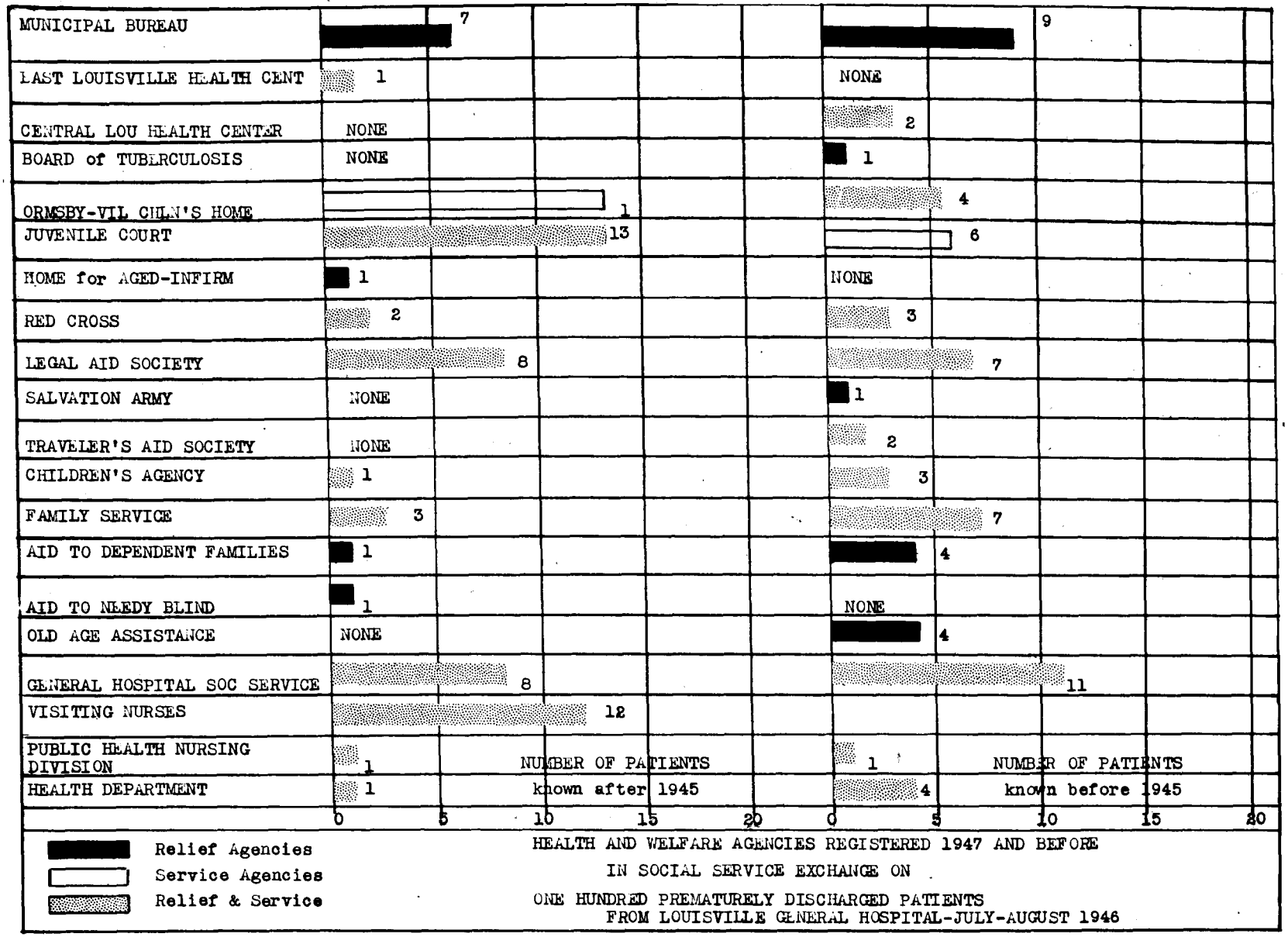

MUNICIPAL BUREAU
LAST LOUISVILLE HEALTH CENT
CENTRAL LOU HEALTH CENTER
BOARD of TUBERCULOSIS
ORMSBY-VIL CHLN'S HOME
JUVENILE COURT
HOME for AGED-INFIRM
RED CROSS
LEGAL AID SOCIETY
SALVATION ARMY
TRAVELER'S AID SOCIETY
CHILDREN'S AGENCY
FAMILY SERVICE
AID TO DEPENDENT FAMILIES
AID TO NEEDY BLIND
OLD AGE ASSISTANCE
GENERAL HOSPITAL SOC SERVICE
VISITING NURSES
PUBLIC HEALTH NURSING DIVISION
HEALTH DEPARTMENT
7
1
NONE
NONE
1
13
1
2
8
NONE
NONE
1
3
1
1
NONE
8
12
1
1
9
NONE
2
1
4
6
NONE
3
7
1
2
3
7
4
NONE
4
11
1
4
NUMBER OF PATIENTS known after 1945
NUMBER OF PATIENTS known before 1945
0 5 10 15 20
0 5 10 15 20
Relief Agencies
Service Agencies
Relief & Service
HEALTH AND WELFARE AGENCIES REGISTERED 1947 AND BEFORE
IN SOCIAL SERVICE EXCHANGE ON
ONE HUNDRED PREMATURELY DISCHARGED PATIENTS
FROM LOUISVILLE GENERAL HOSPITAL-JULY-AUGUST 1946

Fig. 5.

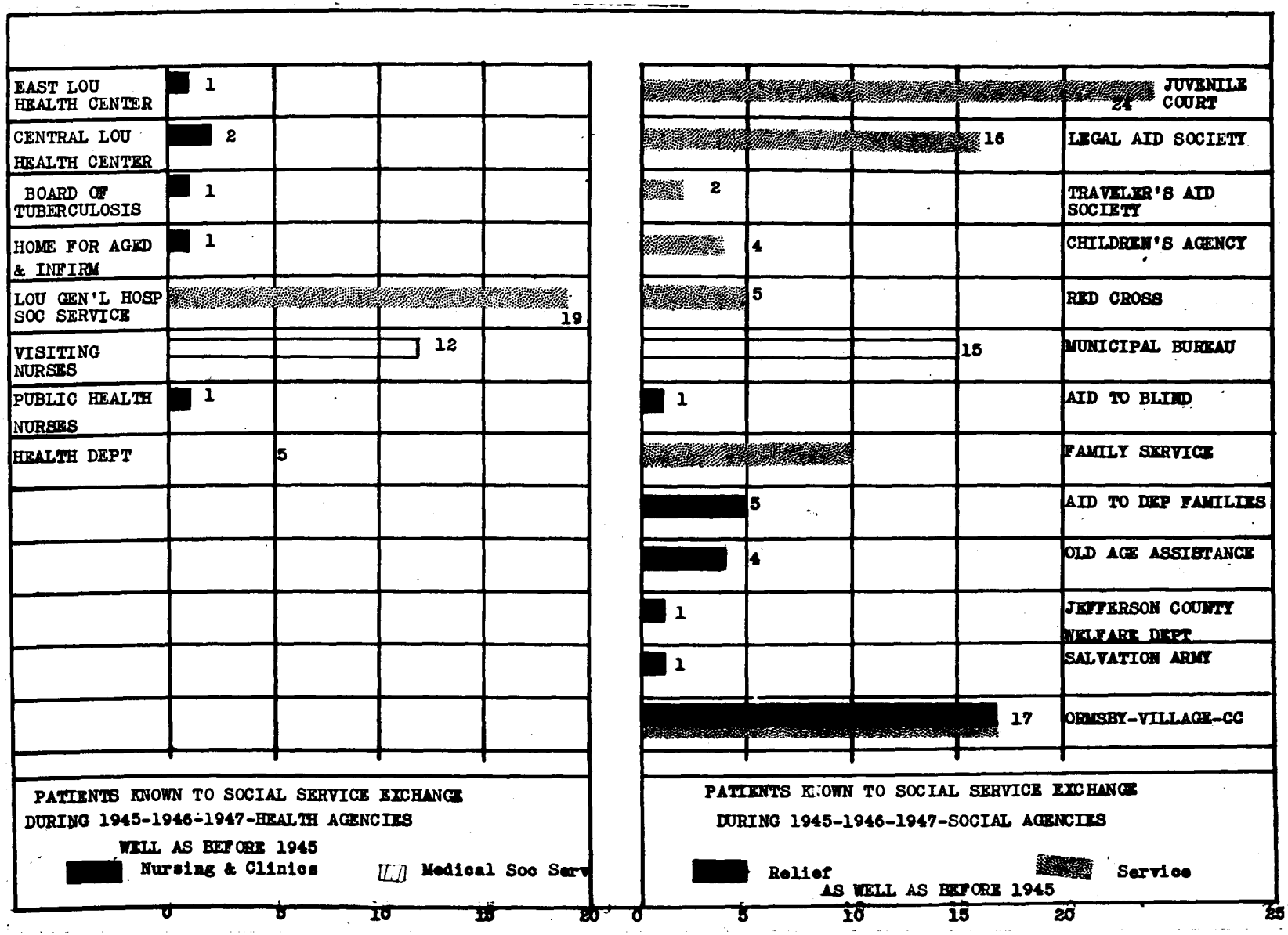

EAST LOU HEALTH CENTER
1
CENTRAL LOU HEALTH CENTER
2
BOARD OF TUBERCULOSIS
1
HOME FOR AGED & INFIRM
1
LOU GEN'L HOSP SOC SERVICE
19
VISITING NURSES
12
PUBLIC HEALTH NURSES
1
HEALTH DEPT
5
PATIENTS KNOWN TO SOCIAL SERVICE EXCHANGE
DURING 1945-1946-1947-HEALTH AGENCIES
WELL AS BEFORE 1945
Nursing & Clinics
Medical Soc Serv
0
5
10
15
20
JUVENILE COURT
24
LEGAL AID SOCIETY
16
TRAVELER'S AID SOCIETY
2
CHILDREN'S AGENCY
4
RED CROSS
5
MUNICIPAL BUREAU
15
AID TO BLIND
1
FAMILY SERVICE
AID TO DEP FAMILIES
5
OLD AGE ASSISTANCE
4
JEFFERSON COUNTY WELFARE DEPT
1
SALVATION ARMY
1
ORMSBY-VILLAGE-CC
17
PATIENTS KNOWN TO SOCIAL SERVICE EXCHANGE
DURING 1945-1946-1947-SOCIAL AGENCIES
Relief
Service
AS WELL AS BEFORE 1945
0
5
10
15
20
25

Fig. 6.

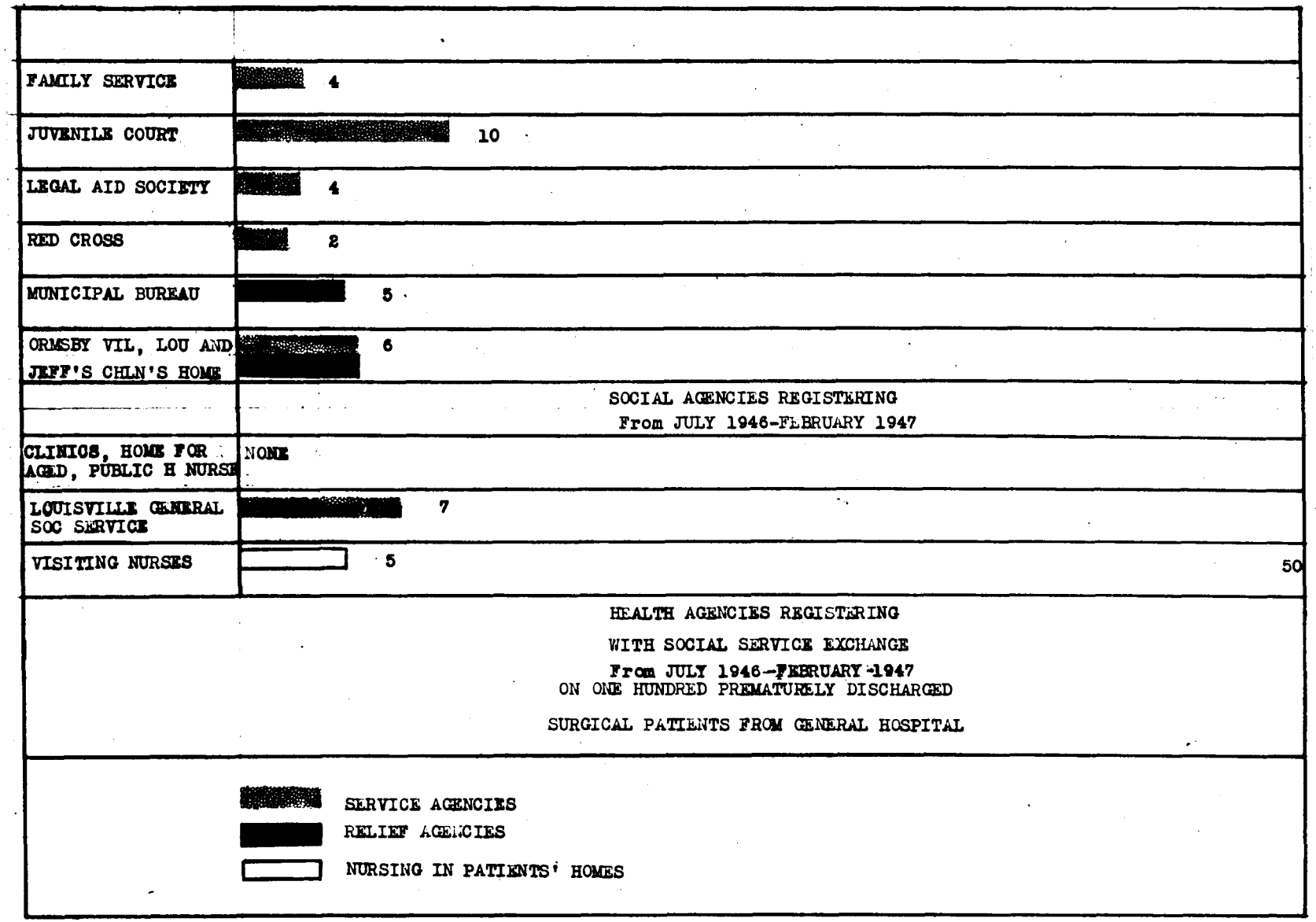
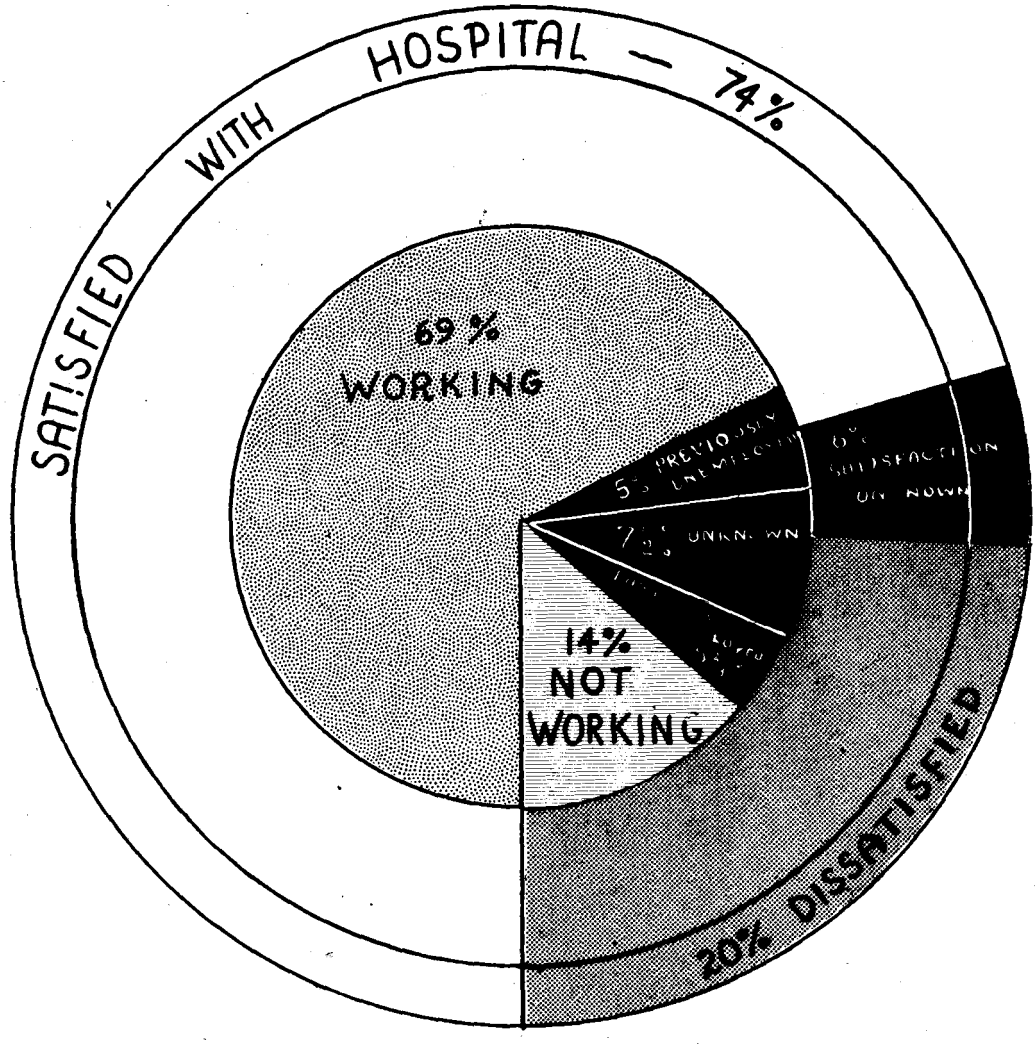

FAMILY SERVICE
4
JUVENILE COURT
10
LEGAL AID SOCIETY
4
RED CROSS
2
MUNICIPAL BUREAU
5
ORMSBY VIL, LOU AND JEFF'S CHLN'S HOME
6
SOCIAL AGENCIES REGISTERING
From JULY 1946-FEBRUARY 1947
CLINICS, HOME FOR AGED, PUBLIC H NURSE
NONE
LOUISVILLE GENERAL SOC SERVICE
7
VISITING NURSES
5
50
HEALTH AGENCIES REGISTERING
WITH SOCIAL SERVICE EXCHANGE
From JULY 1946-FEBRUARY 1947
ON ONE HUNDRED PREMATURELY DISCHARGED
SURGICAL PATIENTS FROM GENERAL HOSPITAL
SERVICE AGENCIES
RELIEF AGENCIES
NURSING IN PATIENTS' HOMES

Fig. 7.



SEVENTY-FOUR PREMATURELY DISCHARGED PATIENTS FROM GENERAL HOSPITAL SHOWING PERCENTAGE WORKING AND PERCENTAGE SATISFIED WITH CARE

Fig. 8.

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